

2015-1564

**United States Court of Appeals
for the Federal Circuit**

TRIPLE TEE GOLF, INC., a Florida corporation,

Plaintiff-Appellant,

v.

TAYLOR MADE GOLF COMPANY, INC., a Delaware corporation,

Defendant-Appellee.

*Appeal from the United States District Court for the Southern District of
California in Case No. 3:11-cv-02974-JLSWVG, Judge Janis L. Sammartino*

BRIEF OF PLAINTIFF-APPELLANT

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October 19, 2015

Certificate of Interest

Counsel for plaintiff-appellant hereby certifies the following:

1. The full name of every party represented by me is:

Triple Tee Golf, Inc.

2. The name of the real party in interest (if the party named in the motion is not the real party in interest) represented by me is:

The real party in interest is named in the caption.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None.

4. The name of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are appearing in this Court are:

Melvin K. Silverman, M.K. Silverman and Associates, Jacqueline Tadros, Jacqueline Tadros, P.A.

October 19, 2015

Date

/s/ Melvin Silverman

Signature of counsel

Melvin K. Silverman

Printed name of counsel

Table of Contents

Certificate of Interest.....	i
Table of Contents.....	ii
Table of Authorities.....	v
Glossary of Abbreviations.....	viii
I. Statement of Related Cases.....	1
II. Statement of Jurisdiction.....	1
III. Statement of the Issues.....	1
IV. Statement of the Case	
A. Procedural Background.....	2
B. Statement of the Facts.....	3
V. Applicable Legal Standard	
A. Standard of Review.....	4
B. Legal Effect of Reexamined Claims.....	5
VI. Summary of Argument.....	9
VII. Argument	
A. The district court erred in finding that the additional language in claim 20, imposed a new requirement that the location of the weighting means is adjustable, since original claim 9 required adjustability of the weighting means.....	13
1. In finding that claim 9 was satisfied by simply placing a weighting means at the desired location	

	during design and manufacture, the district court introduced a limitation into claim 9 that was expressly contradicted by the intrinsic evidence.....	14
	(a) The <i>ex parte</i> reexamination of claim 9 was initiated by Taylor Made based on adjustability of the weighting means.....	18
2.	The express language of claim 9 provides for adjustability of the weighting means.....	20
	(a) A finding that claim 9 does not allow adjustability of the weighing means is unsupported since it means that claim 20 was impermissibly broadened in contravention of 35 U.S.C. §305.....	25
3.	The court erred in relying on the patent examiner’s unilateral statement made during the <i>ex parte</i> reexamination to limit claim scope.....	26
B.	The district court erred in finding that the additional language in claim 20 imparted a new restriction on the path of the weighting means that was not inherent in claim 9.....	28
1.	A restriction on the path of the weighting means that imposes a limitation on the value of the Y-axis to either increase or stay constant as the value of the Z-axis increases is the <u>only</u> possible scenario in claim 9 within the scope of the invention, consistent with the specification and claim language.....	29
2.	The language of claim 9 accords with the path shown in Figure 5 and recites the identical restriction on the path in new claim 20, since the terms “low Y, low Z” and “high Y, high Z” must be construed to refer to the (Y1, Z1) and (Y3, Z3) coordinates respectively, consistent with the specification and drawings.....	34
3.	The court erred in finding that the patent examiner’s suggestion to include the additional language in	

claim 20 during the <i>ex parte</i> reexamination, means that the limitation was not inherent in original claim 9.....	36
Conclusion.....	38
Addendum	
Order Granting Defendant’s Motion for Summary Judgment (March 23, 2015).....	A1-A18
Judgment (March 23, 2015).....	A19
U.S. Patent. No. 7,128,660, the Patent in Suit.....	A227-A245
<i>Inter Partes</i> Reexamination Certificate of U.S. Patent No. 7,218,660.....	A246-A247
<i>Ex Partes</i> Reexamination Certificate of U.S. Patent No. 7,128,660.....	A248-A249
Certificate of Service	
Certificate of Compliance	

TABLE OF AUTHORITIES

<u>Cases</u>	<u>Page(s)</u>
<i>3M Innovative Props. Co. v. Avery Dennison Corp.</i> , 350 F.3d 1365 (Fed. Cir. 2003).....	27
<i>Anderson v. International Eng’g & Mfg.</i> , 160 F.3d 1345 (Fed. Cir. 1998).....	26
<i>Bloom Eng’g Co., Inc. v. Am. Mfg. Co., Inc.</i> , 129 F.3d 1247 (Fed. Cir. 1997).....	6
<i>GE Lighting Solutions, LLC v. AgiLight, Inc.</i> , No. 13-1267 (Fed. Cir. May 1, 2014) (Slip op. at 5).....	6, 7, 28
<i>In re Etter</i> , 756 F.2d 852 (Fed. Cir. 1985).....	25
<i>In re Freeman</i> , 30 F.3d 1459 (Fed. Cir. 1994).....	25
<i>In re Papst Licensing Digital Camera Patent Litigation</i> , No. 14-1110 (Fed. Cir. Feb. 2, 2015).....	8, 18
<i>Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.</i> , 381 F.3d 1111 (Fed. Cir. 2004).....	17, 18
<i>Interactive Gift Express, Inc. v. Compuserve, Inc.</i> , 256 F.3d 1323 (Fed. Cir. 2001).....	7
<i>Kaufman Co. v. Lantech, Inc.</i> , 807 F.2d 970 (Fed.Cir.1986).....	8, 37
<i>Laitram Corp. v. NEC Corp.</i> , 163 F.3d 1342 (Fed. Cir. 1998).....	4, 6
<i>Laitram Corp. v. NEC Corp.</i> , 952 F.2d 1357 (Fed. Cir. 1991).....	6, 8, 37
<i>Lear Siegler, Inc. v. Aeroquip Corp.</i> , 733 F.2d 881 (Fed. Cir. 1984).....	7

<i>Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.</i> , 744 F.3d 1272 (Fed. Cir. Feb. 21, 2014).....	4
<i>Markman v. Westview Instruments, Inc.</i> , 52 F.3d 967 (Fed. Cir. 1995).....	4, 35
<i>Mycogen Plant Science v. Monsanto Co.</i> , 243 F.3d 1316 (Fed. Cir. 2001).....	5
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	7, 10, 17, 24, 35
<i>Renishaw PLC v. Marposs Societa per Azioni</i> , 158 F.3d 1243 (1998).....	24
<i>Richardson v. Suzuki Motor Co.</i> , 868 F.2d 1226 (Fed. Cir. 1989).....	19
<i>Salazar v. Procter & Gamble Co.</i> , 414 F.3d 1342 (2005).....	27
<i>Seattle Box Co. v. Industrial Crating & Packing, Inc.</i> , 731 F.2d 818 (Fed.Cir.1984).....	7, 8, 37
<i>Sciele Pharma Inc. v. Lupin Ltd.</i> , 684 F.3d 1253 (Fed. Cir. 2012).....	4
<i>SciMed Life Sys. Inc. v. Advanced Cardiovascular Sys., Inc.</i> , 242 F.3d 1337 (Fed. Cir. 2001).....	27
<i>Slimfold Mfg. Co. v. Kinkead Industries, Inc.</i> , 810 F.2d 1113 (Fed.Cir.1987).....	8, 37
<i>Schwing GmbH v. Putzmeister Aktiengesellschaft</i> , 305 F.3d 1318 (Fed. Cir. 2002).....	27
<i>Tennant Co. v. Hako Minuteman, Inc.</i> , 878 F.2d 1413 (Fed.Cir.1989).....	8, 37
<i>Thorner v. Sony Computer Entm't Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012).....	7
<i>Tillotson, Ltd. v. Walbro Corp.</i> ,	

831 F.2d 1033 (Fed. Cir. 1987).....	25
<i>Toro Co. v. White Consolidated Industries Inc.</i> , 199 F.3d 1295 (Fed. Cir. 1999).....	12, 29, 35
<i>Verdegaal Bros. v. Union Oil Co. of California</i> , 814 F.2d 628 (Fed. Cir. 1987).....	19
<i>Volkswagen of Am., Inc. v. United States</i> , 532 F.3d 1365 (Fed. Cir. 2008).....	5
<u>Statutes</u>	
28 U.S.C. §1292(a)(1).....	1
28 U.S.C. §1295(a)(1).....	1
28 U.S.C. §1331.....	1
28 U.S.C. §1338.....	1
35 U.S.C. §102.....	19
35 U.S.C. §252.....	5, 6, 8, 37
35 U.S.C. §305.....	5, 10, 25
35 U.S.C. §307(b).....	5
<u>Federal Rules of Appellate Procedure</u>	
Fed. R. App. P. 4.....	1
<u>Manual of Patent Examining Procedure</u>	
MPEP §2131.....	20

Glossary of Abbreviations

The following abbreviations are used in Appellant's brief:

Parties:

Appellant:	Triple Tee Golf, Inc.
TGolf:	Triple Tee Golf, Inc.
Appellee:	Taylor Made Golf Company, Inc.
Taylor Made:	Taylor Made Golf Company, Inc.

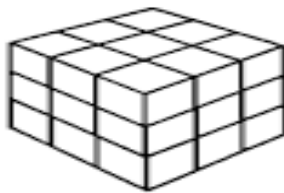
Patent References:

'660 Patent:	U.S. Pat. No. 7,128,660 (to Gillig) entitled, "Method of Golf Club Performance Enhancement and Articles Resultant Therefrom"
Dammen:	WO 01/66199 A1 (to Dammen) entitled, "Golf Club Head With Adjustable Weights"

Defined Terms:

A_____	Appendix page(s)
(__:_____)	Column and line number(s) in patent reference(s)
Claim 9:	Claim 9 of U.S. Pat. No. 7,128,660 (to Gillig)
Original Claim 9:	Claim 9 of U.S. Pat. No. 7,128,660 (to Gillig)
Claim 20:	Claim 20 of U.S. Pat. No. 7,128,660 (to Gillig) subsequent to the <i>Ex Parte</i> Reexamination
New Claim 20:	Claim 20 of U.S. Pat. No. 7,128,660 (to Gillig) subsequent to the <i>Ex Parte</i> Reexamination
court <i>or</i> district court	United States District Court for the Southern

<i>or trial court</i>	District of California, Honorable Janis L. Sammartino, presiding
Court	United States Court of Appeals for the Federal Circuit
examiner	U.S. Patent and Trademark Office Examiner
<i>ex parte</i> reexamination:	<i>Ex Parte</i> Reexamination of Claim Nos. 1 and 9 of U.S. Pat. No. 7,128,660 based on WO 01/661991 A1, filed by Taylor Made/Adidas on February 6, 2013
<i>inter partes</i> reexamination ¹ :	<i>Inter Partes</i> Reexamination of U.S. Pat. No. 7,128,660 filed by Taylor Made/Adidas on July 20, 2012.
MPEP	Manual of Patent Examining Procedure
cell or cell location:	A coordinate within the 3x3x3 matrix.
cube:	A 3x3x3 matrix with 27 coordinates along an X-Y-Z axis.



¹ The *inter partes* reexamination is not related to an issue on appeal. Claim 9 of U.S. Pat. No. 7,128,660 survived the *inter partes* reexamination.

I. Statement of Related Cases

Appellant is aware of no other related cases pending at this time.

II. Statement of Jurisdiction

This is an action for patent infringement of U.S. Patent No. 7,128,660 entitled “Method of Golf Club Performance Enhancement and Articles Resultant Therefrom”. The trial court had jurisdiction pursuant to 28 U.S.C. §§1331 and 1338. This Court has jurisdiction pursuant to 28 U.S.C. §1295(a)(1). This appeal is from a final order granting a motion for summary judgment, which is appealable. 28 U.S.C. §1292 (a)(1). The trial court issued its order on March 23, 2015. **A19.** Appellant timely filed a Notice of Appeal on April 15, 2015. Fed. R. App. P. 4. **A647.**

III. Statement of the Issues

1. Whether the district court erred in finding that the added language in new claim 20 subsequent to the *ex parte* reexamination, namely the phrase, “in which an increase in a Z-axis value does not correspond to a decrease in the Y-axis value”, imposed a new requirement that:

- (a) the location of the weighting means is adjustable; and
- (b) as the value of the Z-axis increases, the value of the Y-axis may not decrease, but must increase or stay constant?

IV. Statement of the Case

A. Procedural Background

On December 20, 2011, TGolf filed a complaint alleging *inter alia* infringement of U.S. Pat. No. 7,128,660 entitled “Method of Golf Club Performance Enhancement and Articles Resultant Therefrom” (the ‘660 patent).

A75.

On July 25, 2012, the trial court granted the parties’ joint motion to stay litigation pending *inter partes* reexamination of the patents-in-suit¹. **A183.**

Claims 7, 9 and 15 of the ‘660 patent survived the *inter partes* reexamination. **A246-247.** On February 6, 2013 Taylor Made filed a request for an *ex parte* reexamination of claim 9 of the ‘660 patent. **A749-750.** At the conclusion of the *ex parte* reexamination, the ‘660 patent comprised original claim 7 and new claims 20, 21 and 22. Claim 20 is an independent claim, while claims 7, 21 and 22 depend from claim 20. **A248-249.**

Taylor Made filed a motion for summary judgment on the grounds that (a) the claims of the ‘660 patent subsequent to the reexamination are not substantially identical to the original claims and (b) it had discontinued the manufacture and importation of each accused product, with no plans to manufacture or import any

¹ U.S. Pat. No. 7,854,667 is not in issue in the appeal

of the accused products in the future. **A284**. The trial court granted Taylor Made's motion for summary judgment. **A19**. This Appeal follows. **A647**.

B. Statement of the Facts

TGolf alleges that Taylor Made directly infringed its '660 patent under 35 U.S.C. 271(a) based on the manufacture, sale, and use of its "r" and "R" series golf clubs. **A217-220**. The '660 patent focuses on having a variety of positions for the center of gravity, distribution of weight, or weights within the head of the club. **A240** (1: 64-67). There are 27 potential locations in the void space located on an orthonormal matrix comprised of three axes (x, y and z). *Id.* at 2:1-5, 33-37. Depending on a golfer's needs, he or she can adjust the center of gravity, distribution of weight, and/or weights accordingly. *Id.* at 1:64 - 2:5.

For example, a golfer can modify his or her backspin by weighting means at a low Y, low Z coordinate to increase backspin, or at a high Y, high Z coordinate to decrease backspin. *Id.* at 2:48 -51. Changing the weighting means can affect backspin, penetration, trajectory and hook or slice. *Id.* at 2:62 -67.

Taylor Made alleges that new claim 20 of the reexamined '660 patent ("claim 20" or "new claim 20") has a different scope and is not substantially identical to claim 9 of the '660 patent ("claim 9" or "original claim 9") based on newly added language in subsection (c)(i), which reads, "an increase in a Z-axis value does not correspond to a decrease in the Y-axis value." **A305, A308**.

The court agreed with Taylor Made and granted summary judgment finding that the additional language in new claim 20 resulted in a substantive change in claim scope for the following reasons:

- (1) The additional language imposed a new requirement not present in original claim 9 that the weighting means is adjustable. **A10** (line 27) – **A11**, (line 25); and
- (2) The additional language imposed a new requirement not present in original claim 9 that as the value of the Z-axis increases, the value of the Y-axis may not decrease, but must increase or stay constant. **A14** (line 5) – **A15** (line 18)

V. Applicable Legal Standard

A. Standard of Review

Whether a reexamined claim and an original claim are substantially identical is a question of law for the Court to decide. *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1346-47 (Fed. Cir. 1998) (*citing Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995)(*en banc*) *aff'd*, 517 U.S. 370 (1996)). The Federal Circuit applies *de novo* review to questions of law. *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1259 (Fed. Cir. 2012). Questions of law include, statutory interpretations, patent claim constructions, and grants or denials of judgment as a matter of law. *See, e.g., Lighting Ballast Control LLC v. Philips*

Elecs. N. Am. Corp., 744 F.3d 1272, 1276-77 (Fed. Cir. 2014) (claim construction); *Volkswagen of Am., Inc. v. United States*, 532 F.3d 1365, 1369 (Fed. Cir. 2008) (statutory interpretation and summary judgment); *Mycogen Plant Science v. Monsanto Co.*, 243 F.3d 1316, 1325 (Fed. Cir. 2001) (judgment as a matter of law).

B. Legal Effect of Reexamined Claims

“In any reexamination proceeding, the patent owner will be permitted to propose any amendment to the patent and a new claim or claims thereto, in order to distinguish the invention as claimed from the prior art cited under the provisions of section 301 of this title, or in response to a decision adverse to the patentability of a claim of a patent. **No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination.**” 35 U.S.C. §305 (emphasis added).

“Any proposed amended or new claim determined to be patentable and incorporated into a patent following a reexamination proceeding will have the same effect as that specified in [35 U.S.C. §252] for reissued patents.” 35 U.S.C. §307(b).

35 U.S.C. §252 provides that if:

the claims or the original and reissued patents are **substantially identical** [surrender of the original patent] shall not affect any action then pending nor abate any cause of action then existing, and the reissued patent, to the extent that its claims are substantially identical with the original patent, shall

constitute a continuation thereof and have effect continuously from the date of the original patent. (emphasis added).

To determine whether a reexamined claim is substantially identical to an original claim, “it is necessary to analyze the claims...in light of the particular facts, including the prior art, the prosecution history, other claims, and any other pertinent information.” *Laitram Corp.*, 163 F.3d at 1347 (internal quotations and citations omitted).

An amendment that clarifies the text of the claim or makes it more definite without affecting its scope is viewed as identical for the purpose of §252. *Bloom Eng’g Co., Inc. v. Am. Mfg. Co., Inc.*, 129 F.3d 1247, 1250 (Fed. Cir. 1997) (internal citations omitted).

When claims are amended during reexamination following a rejection based on prior art, the claims are not deemed substantially changed as a matter of law. There is no *per se* rule. To determine whether a claim change is substantive it is necessary to analyze the claims of the original and the reexamined patents in light of the particular facts, including prior art, the prosecution history, other claims, and any other pertinent information. *Laitram Corp. v. NEC Corp.*, 952 F.2d 1357, 1362-63, (Fed. Cir. 1991).

Claim terms must be construed in light of the patent’s specification and prosecution history, they “only compel departure from the plain meaning in two instances: lexicography and disavowal.” *GE Lighting Solutions, LLC v. AgiLight*,

Inc., No. 13-1267 (Fed. Cir. May 1, 2014) (Slip op. at 5) (*citing Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)).

To determine the meaning of claims, courts “look first to the intrinsic evidence of record,” that is, the (i) claims, (ii) specification; and (iii) prosecution history of the patent. *Interactive Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) (internal citation omitted). Such intrinsic evidence is “the most significant source of the legally operative meaning of disputed claim language.” *Id.* Claim terms should be construed according to their “ordinary and customary meaning,” from the perspective of a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). However, a patentee may choose “to be his own lexicographer” by giving certain terms unique or uncommon meanings. *See Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 888 (Fed. Cir. 1984). Where the proper construction of a claim is not clear after consideration of intrinsic evidence, the court may refer to “extrinsic evidence,” such as expert testimony, inventor testimony, learned treatises and other sources. *Phillips*, 415 F.3d at 1317-18. Unless a claim granted or confirmed upon reexamination is identical to an original claim, the patent can not be enforced against infringing activity that occurred before issuance of the reexamination certificate. “Identical” does not mean verbatim, but means at most without substantive change. *Seattle Box Co. v.*

Industrial Crating & Packing, Inc., 731 F.2d 818, 827-28 (Fed.Cir.1984). In *Slimfold Mfg. Co. v. Kinkead Industries, Inc.*, 810 F.2d 1113, 1115 (Fed. Cir.1987), the court explained that the scope of the claims must be the same after reissue, not that the same words must be used. Thus whether amendments made to overcome rejections based on prior art are substantive depends on the nature and scope of the amendments, with due consideration "to the facts in any given case that justice will be done." *Laitram Corp.*, 952 F.2d at 1361 (internal quotations omitted).

There is no absolute rule for determining whether an amended claim is legally identical to an original claim. An amendment that clarifies the text of the claim or makes it more definite without affecting its scope is generally viewed as identical for the purpose of §252. *Kaufman Co. v. Lantech, Inc.*, 807 F.2d 970, 977 (Fed.Cir.1986); *Tennant Co. v. Hako Minuteman, Inc.*, 878 F.2d 1413, 1417 (Fed.Cir.1989). Determination of whether a claim change during reexamination is substantive requires analysis of the scope of the original and reexamined claims in light of the specification, with attention to the references that occasioned the reexamination, as well as the prosecution history and any other relevant information. *Laitram*, 952 F.2d at 1362-63.

It is error for a court to import a limitation into a claim that is unsupported by the intrinsic evidence. See generally, *In re Papst Licensing Digital Camera Patent Litigation*, No. 14-1110 (Fed. Cir. Feb. 2, 2015).

VI. Summary of the Argument

Adjustability of the Weighting Means

The district court's construction of claim 9 is flawed. It's statement that, "claim 9 was cancelled at least partly on the ground that it was *anticipated* by Dammen" **A14** (lines 20 – 21)(emphasis added) is inconsistent with its finding that claim 9 did not provide for adjustability of the weighting means since Dammen discloses a golf club head having an adjustable weighting system that allows a user to move the club head's center of gravity and thereby enhance its performance" **A799** (lines 13-20) and claims "[a] metal golf club head with **movable weights**..." **A804** (lines 3-5) (emphasis added). It is inconsistent to find on the one hand that claim 9 was anticipated by a reference that teaches and claims an adjustable weighting system and on the other hand find that claim 9 does not claim an adjustable weighting system.

Additionally, the language of claim 9 itself, including the phrase "selectably employing two of the following weighting strategies...to modify backspin, providing within said void space weighting means between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin" (**A243** (7:60 – 8:2)) claims an adjustable weighting system.

The specification of the '660 patent expressly teaches the benefits and advantages of a method of enhancing golf club performance using an adjustable

weighting system. **A227, A240** (1:64-2:67). An adjustable weighting system is the very core of the ‘660 patent. The court failed to construe claim 9 in view of the specification and in so doing imported a limitation that is expressly contradicted by the specification thereby divorcing the claim language from what the specification conveys is the invention. Claims must be read in view of the specification, of which they are a part. *Phillips*, 415 F.3d at 1316 (internal citations omitted).

Moreover the court’s finding that claim 9 does not provide for adjustability, is inconsistent with the statute, since it means that the scope of claim 20, which the parties agree provides for adjustability of the weighting means **A10** (lines 25-27), was impermissibly broadened during the *ex parte* reexamination. The statute states in relevant part:

“No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter.”

35 U.S.C. §305.

Finally, the district court erred in relying on the patent examiner’s unilateral statement made during the *ex parte* reexamination to limit claim scope **A11** (lines 15-19), since the patentee did not agree to disavow claim scope and expressly rebutted the examiner’s statement. **A894, ¶5**

Restriction on the Path of the Weighting Means

The addition of the phrase, “in which an increase in a Z-axis value does not

correspond to a decrease in a Y-axis value” did not alter the scope of claim 9. The restriction on the path of the weighting means in new claim 20 is identical to the restriction in claim 9, since it is the only possible scenario within the scope of the invention, consistent with the specification and the claim language.

The specification teaches that the terms “low Y, low Z” equate to (Y1, Z1) and “high Y, high Z” equate to (Y3, Z3). **A240** (2:48-51), **A242** (5:21-23), **A232** (Fig. 5).

Claim 9(c)(i) defines a path to modify backspin in which the coordinates are adjusted from a (Y1, Z1) coordinate to increase backspin to a (Y3, Z3) coordinate to decrease backspin. **A243** (7:60 – 8:2). Thus, as the value of the Z-axis increases from a (Y1, Z1) coordinate to a (Y3, Z3) coordinate, the Y-axis value may not decrease but must either increase to Y2, or Y3 or stay constant at Y1. This is apparent when one views the coordinate system within the volumetric matrix as illustrated by a two and three-dimensional rendering of a 27 volumetric matrix in Section VII.B.1 *infra*. As illustrated, the weighting means may be provided between a (Y1, Z1) coordinate located at the bottom layer of the volumetric matrix to increase backspin to a (Y3, Z3) coordinate located at the top layer of the volumetric matrix to decrease backspin. The middle layer illustrates the Z-axis value at Z2 between a low Y, low Z (Y1, Z1) coordinate and a high Y, high Z (Y3, Z3) coordinate.

Thus, substituting (Y1, Z1) and (Y3, Z3) for “low Y, low Z” and “high Y, high Z” respectively, section (c)(i) of claim 9 as amended (i.e. new claim 20) reads:

to modify backspin, providing within said void space weighting means between a Y1, Z1 coordinate to increase backspin to a high Y3, Z3 coordinate to decrease backspin in which an increase in a Z-axis value does not correspond to a decrease in a Y-axis value.

See **A249** (2:12-16).

Thus, although claim 20 is not copied verbatim from claim 9, it is nonetheless identical in claim scope, since the limitation on the weighting strategy imposes no new restriction. The additional language merely clarifies the limitation in claim 9(c)(i) that the Y-axis value must either increase or stay constant as the Z-axis value increases.

Claim 9 cannot be construed in a lexicographic vacuum without reference to the specification and drawings that expressly define the terms, “low Y, low Z” and “high Y, high Z” and the orthonormal matrix within which the weighting strategy occurs. **A240** (2:1-3; 48-51), **A242** (5:21-23), **A232** (Fig. 5). *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a “lexicographic vacuum, but in the context of the specification and drawings”).

Finally, the court erred in concluding that just because the patent examiner suggested including additional language in claim 20, that the limitation was not inherent in original claim 9. **A15** (lines 2-6).

VII. Argument

A. The district court erred in finding that the additional language in claim 20, imposed a new requirement that the location of the weighting means is adjustable, since original claim 9 required adjustability of the weighting means.

To support a finding that the added language “an increase in a Z-axis value does not correspond to a decrease in the Y-axis value” in claim 20 imposed a new requirement that the location of the weighting means is adjustable (**A6-A11**) the court made the following determinations:

- i. Appellant’s contention that original claim 9 requires an ability to adjust the weighting means, simply meant that the weighting means could have been placed within the range during the design and manufacture. **A11** (lines 5-9).
- ii. Nowhere in section (c)(i) of original claim 9, nor in the rest of the original claim is there a suggestion that the weighting means must be adjustable; they must simply be provided within the given range. **A11** (lines 11-13).
- iii. The examiner’s statement made during the reexamination of the ‘660 patent that “[t]he claim does not recite adjustability of the weights for different weighting strategies” supports a finding that original claim 9 did not include an ability to adjust the weights. **A11** (lines 15-19).

1. In finding that claim 9 was satisfied by simply placing a weighting means at the desired location during design and manufacture, the court introduced a limitation into claim 9 that was expressly contradicted by the intrinsic evidence.

The '660 patent is premised on the benefits and advantages that derive to a golfer from having a single golf club that can implement various weighting strategies. **A227, A240** (1:64-2:67). While a player is on a course, he or she can provide selectable weighting elements within volumetric coordinates of an orthonormal matrix about the void space of a golf club to modify ball backspin, trajectory, penetration and hook or slice. *Id.*, **A241** (3:11-20).

The '660 patent teaches that a golfer may use weighting means within a golf club for precise compensation, to minimize or maximize ball ballooning to the preference of the individual golfer, or to compensate for golf course conditions. **A241** (4:48-54), **A242** (5:30-6:3), **A241-A243**.

The '660 patent further teaches that the weighting coordinates are provided in response to ball strike, flight analysis and physiologic observation of the golf strike swing. **A227**.

The '660 patent expressly states that an object of the invention is to provide a club head, modified with a hollow interior and having selectable point, axis, vector distributed linear or non-linear **weights which may be inserted or removed to suit particular preferences, needs and physiologic requirements of a golfer**. **A241** (3:11- 15) (emphasis added). It is accordingly an object of the

invention to **provide a golf club having a weight modifiable club head, inclusive of interchangeable sole plates and/or weighting elements**, which express a universal method of golf club head modification to account for ball backspin, penetration, trajectory, and hook or slice. **A240** (2:62-67) (emphasis added).

For example, the ‘660 patent teaches that “[t]herein, **a good player would move weight E to the back of the club** to achieve as penetrating a shot as he could, and **would also position weight F to reduce the spin, putting an additional weight in the X-axis center (X2) of the club.**” **A242** (6:5-9) (emphasis added).

A key benefit of the ‘660 patent is that it provides a player with the use of “multiple golf clubs in one”. If the weighting strategy claimed in the ‘660 patent is satisfied by simply placing a weighting means at the desired location during design and manufacture and fixing it there without allowing for adjustability by the golfer, the benefit to the golfer is eviscerated. A golfer would need to carry a separate golf club for each possible weighting strategy within the orthonormal matrix of claim 9.

The ‘660 patent teaches that it is an object of the invention to provide improved elements and arrangements through a method of providing **an inexpensive**, durable and effective means of compensating for ball spin, ball flight trajectory, ball spin and golf course surface variables. **A241** (3:17-20) (emphasis

added).

Clearly, the weighting means are not affixed to a particular set of coordinates during manufacture, but may be positioned by the golfer pursuant to multiple weighting strategies as claimed in the '660 patent. The weighting means are movable by the golfer, to suit the individual golfer's particular preference on any given day or course. The positioning of the weighting means is modified in order to minimize or maximize ball ballooning, in response to ball strike, flight analysis and physiologic observation of the golf strike swing, or to compensate for golf course conditions. **A227, A240** (1:64 -2:5).

The district court's reading that the weighting strategy can't be adjusted by a golfer would mean that rather than have a single golf club with weights that can be inserted or removed at will, the golfer would have to purchase and carry multiple golf clubs, one for every possible weighting strategy. This makes no sense from a manufacturing perspective and poses an undue burden to the golfer in terms of cost and convenience. More importantly for the purpose of this Court, the district court's reading is expressly contradicted by the specification and claim language of the '660 patent.

The district court concedes that the '660 patent relates to a method of selectably varying the center of gravity and distribution of weighting in a void space in the head of a golf club based on the needs of a particular golfer. **A2** (18-

20). It further acknowledges that the ‘660 patent focuses on having a variety of positions for the center of gravity, distribution of weight, or weights within the head of a club. **A2** (20-22) and that there are 27 potential locations in the void space located on an orthonormal matrix comprised of three axes (x, y and z). **A2** (line 23) – **A3** (line 1). The court further acknowledges that the specification teaches that, “[d]epending on a golfer’s needs, he or she can adjust the center of gravity, distribution of weight, and/or weights accordingly.” **A3** (1-7). (emphasis added). For example, according to the patent specification, a golfer can modify his or her backspin by weighting means at a low Y, low Z coordinate to increase backspin, or at a high Y, high Z coordinate to decrease backspin. Changing the weighting means can affect backspin, penetration, trajectory and hook or slice. *Id.*

Claims must be read in view of the specification, of which they are a part. *Phillips*, 415 F.3d at 1316 (internal citations omitted). The specification is always highly relevant to the claim construction analysis. *Id.* (internal citations omitted). Where the specification reveals a special meaning to a claim term or an intentional disclaimer, such limitation governs claim construction. *Id.* It is common and “entirely appropriate” for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims. *Id.* at 1317. The specification provides context for the claims. *See Innova/Pure Water*,

Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed. Cir. 2004) (the specification provides context and can be used to better understand the meaning of the claim).

Thus, the language of claim 9, including the step of “selectably employing” the weighting strategy “to modify backspin, providing within said void space weighting means between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin in claim” (A243 (7:60 – 8:2)) must be read in view of the specification.

The court’s finding that placement of the weighting means at a desired location occurs during manufacture or design and not by a golfer to adjust the weighting strategy to accommodate his or her needs on the golf course, to modify ball spin, minimize or maximize ball ballooning, or to compensate for golf course conditions (A11 (lines 5-9)) imports a limitation into original claim 9 that is expressly contradicted by the specification and the teaching of the ‘660 patent.

It is error for a court to import a limitation into a claim that is unsupported by the intrinsic evidence. See generally, *In re Papst Licensing Digital Camera Patent Litigation*, No. 14-1110 (Fed. Cir. Feb. 2, 2015).

(a) The *ex parte* reexamination of claim 9 was initiated by Taylor Made based on adjustability of the weighting means.

In its request to initiate *ex parte* reexamination, Taylor Made stated that, “the embodiments depicted in Figs. 2-20 of the ‘660 patent provide clear support

for the requirement of providing weighting means over the entire range of coordinates of the club head, low to high, along all three axes, X, Y and Z”. A770 (lines 30 – 33).

Taylor Made argued that Dammen was relevant prior art that presented a substantial new question of patentability to claim 9 of the ‘660 patent, since “Dammen discloses a golf club head having an **adjustable weighting system that allows a user to move the club head’s center of gravity** and thereby enhance its performance.” A771 (lines 12 -14)(emphasis added).

The first claim of Dammen reads in pertinent part, “[a] metal golf club head with **movable weights...**” A804 (lines 3-5) (emphasis added).

Taylor Made stated that claim 1, and claim 9, which depends from claim 1, recite *a range of coordinates* for the weighting means on all three axes. A769 (lines 10-19) and “claims 1 and 9 of the ‘660 patent are invalid because they are **anticipated** by Dammen.” A771 (lines 8-9) (emphasis added).

A claim is anticipated under 35 U.S.C. §102, only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). To anticipate a claim, the disclosure must teach every

element of the claim. *See* MPEP 2131.

It stands to reason that if the *ex parte* reexamination of the ‘660 patent was based on the Taylor Made’s allegation that, “Dammen discloses a golf club head having an **adjustable weighting system that allows a user to move the club head’s center of gravity** and thereby enhance its performance” and “claims 1 and 9 of the ‘660 patent are invalid because they are **anticipated** by Dammen” (A771) (lines 8-9; 13-15) (emphasis added), that claim 9 of the ‘660 patent also claims a golf club head having an adjustable weighting system that allows a user to move the club head’s center of gravity and thereby enhance its performance, that claim 9.

If claim 9 of the ‘660 patent did not have an adjustable weighting system with movable weights, then the Dammen reference could not have been used to initiate the *ex parte* reexamination and claim 9 would not have been reexamined in the first place. The internal inconsistency of these propositions is untenable. The district court’s finding is expressly contradicted by intrinsic evidence.

2. The express language of claim 9 provides for adjustability of the weighting means.

The district court found that, “nowhere in section (c)(i) of original claim 9, nor in the rest of the original claim is there a suggestion that the weighting means must be adjustable. A11 (11-13). The district court however fails to provide its reasoning as to why the mere addition of the phrase “*an increase in a Z-axis value*

does not correspond to a decrease in the Y-axis value” imbues the method of claim 20 with adjustability of the weighting means.² It does not.

Original claim 9 explicitly claims a method that entails selectably employing two of four possible weighting strategies to a single club head. **A243** (7:60 – 8:14). The plain and ordinary meaning of the words of claim 9, provide for the selection of multiple combinations of weighting strategies applied to a single golf club head.

Original claim 9 reads in pertinent part as follows:

A method of enhancing performance of **a golf club**, the method comprising the steps of:

- (a) providing **a void space** behind a face plate of **said club** and above a sole portion thereof;
- (b) applying a virtual X, Y, Z volumetric coordinate system to **said club** in which said sole portion is partially congruent with a bottom-most xy plane thereof, in which said face plate intersects a forward-most XZ plane thereof, and in which a heel and hosel side of said club intersects a YZ plane thereof substantially at an origin of said coordinate system, and further in which an increase in X-axis value corresponds to a direction of a toe of **said club**, an increase in Y-axis value corresponds in direction to a rear of **said club**, and an increase in Z-axis value corresponds to increase in height above said sole portion;
- (c) **selectably employing two of the following club weighting strategies to said club**, in which at least one weighting means thereof is not contiguous to any part of said face plate and a selected value of Y in any one of said strategies does not equal a selected value of Y in a second selected strategy, the strategies comprising:

² The parties are in agreement that claim 20 provides for adjustability of the weighting means. **A10** (lines 25-27).

- (i) to modify backspin, providing within said void space weighting means **between** a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin;

A243 (7:43 – 8:2, 8:46-49) (emphasis added).

The words of claim 9 expressly refer to a method applied to single golf club. That is, the claim recites “a golf club”, having “a void space” and “applying a virtual X, Y, Z volumetric coordinate system to **said club**”.

The method further claims, “**selectably employing two** of the following club weighting strategies to **said club**”. The method claims four weighting strategies, namely, 9(c)(i) – 9(c)(iv), **only two** of which may be applied to a single golf club head, at any given time.³

The fact that multiple combinations of weighting strategies may be applied to a **single golf club head** necessarily requires that the weighting means are adjustable. It is quite simply impossible to apply multiple weighting strategies to a single golf club without adjusting the weights.

By way of analogy, this is akin to a method of adjusting a belt buckle on a belt having multiple notches, where one may elect to engage one, but not all of the notches at a given time. It stands to reason that the belt is adjustable by simply varying the selection of notches. It is unreasonable to suggest that the selection of which notch to engage occurs at the design or manufacture stage and not by the

³ Possible weighting strategies include for example claim 9(c)(i) and 9(c)(iv); 9(c)(ii) and 9 (c)(iii); 9 (c)(ii) and 9 (c)(iv) and 9 (c)(iii) and 9 (c)(iv).

user, since such an interpretation would require a user to keep multiple otherwise identical belts, each one having a belt buckle secured to a notch placed at a distinct location by the designer or manufacturer.

The express language of claim 9 does not comport with the district court's interpretation. To convert claim 9 as the district court suggests, to a method that does not provide for adjustability by the user, one would need at the very least to begin by amending section 9(c) by first removing the terms "selectably" and "two of", so that it would read as follows:

- (c) ~~selectably~~ employing ~~two of~~ the following club weighting strategies to said club, in which at least one weighting means thereof is not contiguous to any part of said face plate and a selected value of Y in any one of said strategies does not equal a selected value of Y in a second selected strategy, the strategies comprising...

Further, the plain language of subsection (c)(i) claims that the weighting means may be adjusted on a continuum of cell locations to effect a particular result. Namely, from a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin. *Id.* at 7:67 – 8:2.

Notably, Taylor Made stated in the *ex parte* reexamination of the '660 patent that, "[i]t is well understood by persons skilled in the art that repositioning the location of the club head's center of gravity ("CG") will affect ball flight." **A855** (lines 11-12) (*citing* Declaration of Todd Beach ¶12)⁴.

⁴ Todd Beach declaration at **A867**.

The district court's finding that the term "modify" in claim 9(c)(i) refers to altering backspin and not to modifying the placement of the weights. **A11** (lines 2-5) is incongruous since modifying backspin entails modifying the placement of the weights. Modifying the placement of the weights is undertaken in order to modify backspin. Similarly, the court's determination that the term "between" in claim 9(c)(i) "simply means that the weighting means could have been placed within the range during design and manufacture" **A11** (lines 6-9) fails to consider the express language of the claim in view of the specification.

Claims should be construed in a manner that "stays true to the claim language and most naturally aligns with the patent's description of the invention." *Phillips*, 415 F.3d at 1316 (Fed. Cir. 2005)(quoting *Renishaw PLC v. Marposs Societa per Azioni*, 158 F.3d 1243, 1250 (1998)).

The invention is a method of enhancing golf club performance by adjusting weighting means within an orthonormal matrix of a void space of a golf club head. **A227** (Abstract). Adjustability of the weighting means within the club head as taught by the '660 patent, is not merely an element of the invention, but is an essential prerequisite. It is the *raison d'être* of the invention. The district court's reading divorces the claim language from what the specification conveys **is** the very essence of the invention. *See Phillips*, 415 F.3d 1303, 1316, 1321 (Fed. Cir. 2005) (remarking that the claims can cover only the invented subject matter).

(a) A finding that claim 9 does not allow adjustability of the weighting means is unsupportable since it means that claim 20 was impermissibly broadened in contravention of 35 U.S.C. §305.

It is error to read original claim 9 as not providing for adjustability of the weighting means, since such a reading requires a finding that the scope of new claim 20 was broadened, in clear contravention of the requirements of the statute. 35 U.S.C. §305.

The patentee in reexamination, unlike in litigation, is afforded the privilege of narrowing the patented claims to overcome new prior art rejections. *In re Etter*, 756 F.2d 852, 857 (Fed. Cir. 1985) (“That a patentee may...amend his claims under reexamination, 35 U.S.C. §305 further distinguish[es] reexamination from litigation.”). Claim broadening is inconsistent with this purpose, because overcoming a prior art rejection can never require claim broadening. *In re Freeman*, 30 F.3d 1459, 1468 (Fed. Cir. 1994).

This Court has observed the strict statutory limits on the broadening of claims in reissue applications and reexamination proceedings. It has repeatedly stated a simple test to detect a broadened claim: a reissue or reexamination claim is “broadened” if it could be infringed by something that would not have infringed any claim of the original patent, and that a claim is broadened if broader in any aspect, even if narrower in other aspects. *Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d 1033, 1037 (Fed. Cir. 1987). The same broadening test is applied to claims in

reexamination. *Anderson v. International Eng'g & Mfg.*, 160 F.3d 1345, 1349 (Fed. Cir. 1998).

A method of enhancing golf club performance that provides for adjustability of the weighting means, could infringe claim 20, but not claim 9, unless claim 9 also provided for adjustability. Clearly if original claim 9 was limited such that it did not provide for adjustability of the weighting means, claim 20 is broader than claim 9.

Applying this Court's test to the present facts, the district court's finding that claim 9 did not provide for adjustability of the weighting means, leads to a finding that the scope of claim 20, was impermissibly broadened.⁵

The inclusion of the phrase, "*an increase in a Z-axis value does not correspond to a decrease in the Y-axis value*" does not impart claim 20 with an ability to adjust the weighting means, any more than the absence of the said phrase strips claim 9 of an ability to adjust the weighting means. Accordingly, it is error to read claim 9 as not providing for adjustability of the weighting means.

3. The court erred in relying on the patent examiner's unilateral statement made during the *ex parte* reexamination to limit claim scope.

In support of its finding that claim 9 of the '660 patent did not require adjustable weighting means, the district court relied on the patent examiner's

⁵ The parties are in agreement that claim 20 provides for adjustability of the weighting means. **A10** (lines 25-26).

unilateral statement that, “[t]he claim does not recite adjustability of the weights for different weighting strategies.” **A11** (lines 16-17). The statement was made in a non-final rejection during re-examination of the ‘660 patent. **A881** (lines 14-15).⁶

Prosecution history...cannot be used to limit the scope of a claim unless the applicant took a position before the PTO. *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (2005) (quoting *Schwing GmbH v. Putzmeister Aktiengesellschaft*, 305 F.3d 1318, 1324-35 (Fed. Cir. 2002) (emphasis added)).

In construing claims, “[t]his court...considers the prosecution history to determine whether the applicant clearly and unambiguously disclaimed or disavowed any interpretation during prosecution in order to obtain allowance.” *Salazar*, 414 F.3d at 1344 (quoting *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003)).

Disavowal requires that “the specification [or prosecution history] make [] clear that the invention does not include a particular feature.” *GE Lighting Solutions*, Slip op. at 6) (citing *SciMed Life Sys. Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001))

Appellant never acquiesced to the patent examiner’s characterization of the weighting strategy. Appellant explicitly rejected the examiner’s characterization. In response to the examiner’s non final rejection, Appellant replied that:

⁶ Appellant notes that the examiner’s statement is inconsistent with the initiation of the *ex parte* reexamination based on Dammen discussed in VII. A.1(a) herein.

“[t]he issue of continuum of different weighting strategies is, to the extent that it was ever necessary to do so, now rendered clear by the use of the terms “between,” and either “and” or “to,” in every independent and dependent claims, not corresponding to original Claim 9, this to render beyond question, the contemplated range of adjustability along all axes of the system. See for example, Col. 3, Lines 5-15 of the original patent as well as the graphs of Figs. 4, 5, 6 and 13 thereof. Accordingly, the claims, at least as presently presented, expressly provide for adjustability of weights in different weighting strategies and, further, expressly recite that within each axis of each strategy one may select a neutral effect thereof by selectively employing weighting means at one or more neutral coordinates.” **A894**, ¶5.

The district court erred in relying on a unilateral statement made in an office action by the patent examiner at the beginning of the *ex parte* reexamination to limit the scope of claim 9, since the patentee expressly rebutted the statement and never acquiesced or agreed to a disavowal of claim scope.

B. The district court erred in finding that the additional language in claim 20 imparted a new restriction on the path of the weighting means that was not inherent in original claim 9.

The court found that, beginning with an analysis of the words of the claims themselves, original claim 9 did not recite the limitation included in new claim 20 which reads “in which an increase in a Z-axis value cannot correspond to a decrease in Y-axis value.” **A14** (lines 5-7). The court made the following determinations to support its finding that the additional language in claim 20 imparted a new restriction on the path of the weighting means:

(i) the words of original claim 9 themselves do not explicitly limit the path for the weighting means. **A14** (lines 5-9).

(ii) the original claims do not suggest that the weighting means have to be placed at a specific location in accordance with the path shown in Figure 5 and therefore the limitation is not inherent. **A14** (lines 9-18).

(iii) the fact that the patent examiner suggested including the additional language, points to the conclusion that the limitation was not inherent in original claim 9. **A14** (line 20) – **A15** (line 6).

1. A restriction on the path of the weighting means that imposes a limitation on the value of the Y-axis to either increase or stay constant as the value of the Z-axis increases is the only possible scenario in claim 9 within the scope of the invention, consistent with the specification and claim language.

Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co.*, 199 F.3d at 1301 (meaning of words used in a claim is not construed in a “lexicographic vacuum, but in the context of the specification and drawings”).

The specification of the ‘660 patent explicitly states that minimum backspin is achieved at (Y3, Z3) and maximum backspin at (Y1, Z1). **A240** (2:48-51), **A242** (5:21-23), **A232** (Fig. 5). In fact, Taylor Made stated in the *ex parte* reexamination, “[t]hus, the prosecution history makes clear that “medium X-position” refers to X2, “high Y, high Z coordinate” refers to Y3, Z3, and “low Y, low Z coordinate” refers to Y1, Z1.” **A761** (lines 23-25).

Thus, the ‘660 patent defines the terms low Y, low Z, high Y, high Z in the

claims as the Y1, Z1, Y3 and Z3 coordinates respectively. The chart below provides a useful summary:

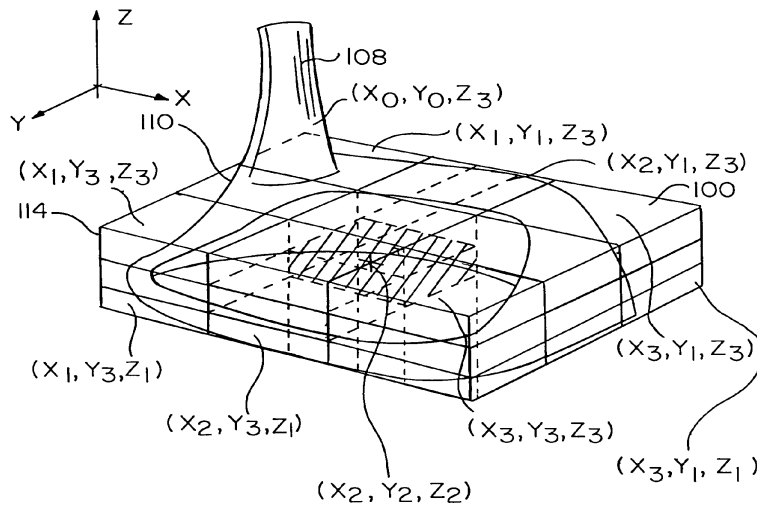
Low Y = Y1
High Y = Y3
Low Z = Z1
High Z = Z3

Therefore, section (c)(i) of claim 9 may be read to state⁷:

- (i) to modify backspin, providing within said void space weighting means between a (Y1, Z1) coordinate to increase backspin to a (Y3, Z3) coordinate to decrease backspin;

Figure 2 illustrates the orthonormal matrix as well as the (X₀, Y₀, Z₃) position at which the hosel (108) enters the club (110). **A230**. It is also noted that the X₂, Y₂, Z₂ position in the middle layer represents the center of gravity of the club before any weighting strategy is applied. *Id.*, **A241** (4:36-39). The position X₀, Y₀ and Z₃ defines the location at which the hosel enters the club head. **A241** (4:29-36).

⁷ Section (c)(i) of claim 9 reads: to modify backspin, providing within said void space weighting means between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin; **A243** (7:60 – 8:2)

**FIG. 2**

Figures 2, 6, 8, 10-12 of the '660 patent illustrate the orthonormal matrix in the void space of the club head. **A229, A230, A233-235**. As illustrated in the aforesaid figures, the X, Y, Z orthonormal coordinates within the club head form a 3 x 3 x 3 cube. A two dimensional depiction of the 27 cell volumetric matrix is shown as:

Top Layer:

X1, Y1, Z3	X2, Y1, Z3	X3, Y1, Z3
X1, Y2, Z3	X2, Y2, Z3	X3, Y2, Z3
X1, Y3, Z3	X2, Y3, Z3	X3, Y3, Z3

Middle Layer:

X1, Y1, Z2	X2, Y1, Z2	X3, Y1, Z2
X1, Y2, Z2	X2, Y2, Z2	X3, Y2, Z2
X1, Y3, Z2	X2, Y3, Z2	X3, Y3, Z2

Bottom Layer:

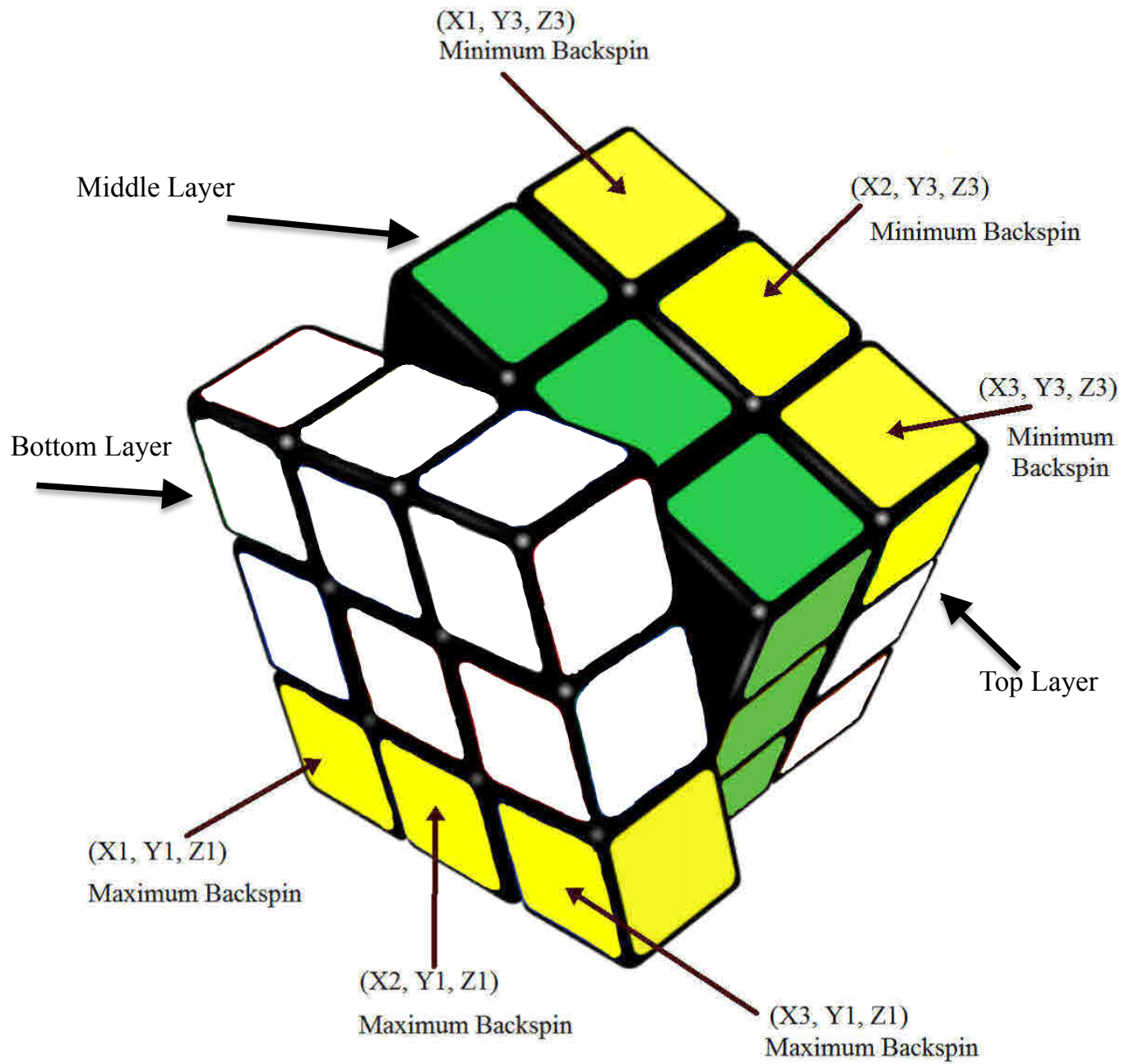
X1, Y1, Z1	X2, Y1, Z1	X3, Y1, Z1
X1, Y2, Z1	X2, Y2, Z1	X3, Y2, Z1
X1, Y3, Z1	X2, Y3, Z1	X3, Y3, Z1

← High Y, High Z

↑ Increasing
Z-axis

← Low Y, Low Z

A three dimensional perspective of the volumetric matrix is illustrated as:



It is noted that although the weighting strategy is adjustable within the coordinate system (*supra* section VII.A), the coordinate system itself does not rotate. Thus, the bottom layer of the coordinate system is shown at an angle of rotation relative to the top and middle layers, merely to better view the (Y1, Z1) coordinates positioned at the bottom layer relative to the (Y3, Z3) coordinates positioned at the top layer.

Thus, the X, Y, Z orthonormal coordinate system of the volumetric matrix, illustrates that as the weighting means is moved between a (Y1, Z1) coordinate to increase backspin to a (Y3, Z3) coordinate to decrease backspin, an increase in the Z-axis value from a (Y1, Z1) coordinate to a Z2 value (within the middle layer) to a (Y3, Z3) coordinate, does not correspond to a decrease in the Y-axis value.

It is clear that the value of the Y-axis must either increase to Y2 or Y3 *or* stay constant at Y1 as the Z-axis value increases and the weighting means are adjusted **between** a (Y1, Z1) coordinate to a (Y3, Z3) coordinate. It is noted that only the middle layer of Z2 coordinates is between (Y1, Z1) and (Y3, Z3) coordinates. The additional language in claim 20 merely clarifies a restriction inherent in original claim 9, since it is the only possible reading consistent with the claim language and specification.

The district court misconstrued the invention and erred in finding that original claim 9 did not require that as the value of the Z-axis increases, the value

of the Y-axis value may not decrease but must increase to Y2 or Y3 *or* stay constant at Y1.

1. The language of claim 9 accords with the path shown in Figure 5 and recites the identical restriction on the path in new claim 20, since the terms “low Y, low Z” and “high Y, high Z” must be construed to refer to the (Y1, Z1) and (Y3, Z3) coordinates respectively, consistent with the specification and drawings.

Original claim 9 expressly claims that the weighting means have to be moved between the Y1, Z1 position to increase backspin to the Y3, Z3 position to decrease backspin. A243 (7:66- 8:2). This limitation corresponds to Figure 5.

A232.

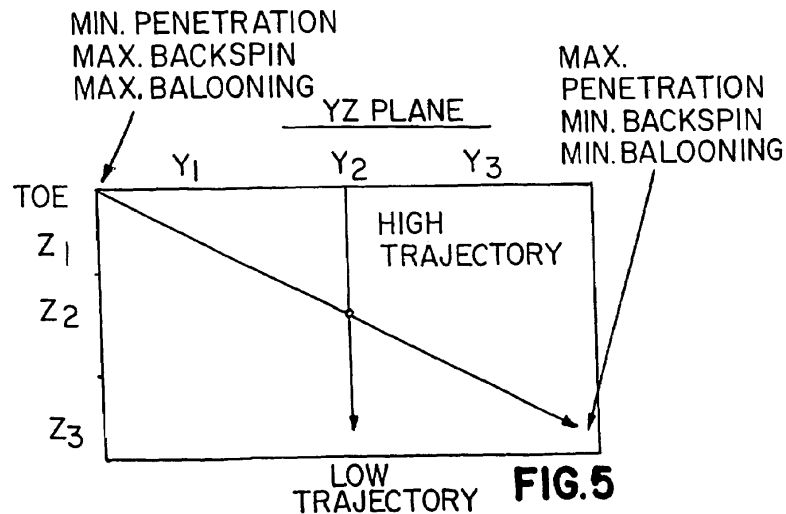


Figure 5 illustrates that at a Y1, Z1 position there is maximum backspin, maximum ballooning and minimum penetration. Figure 5 further illustrates that at a Y3, Z3 position there is minimum backspin, minimum ballooning and maximum penetration. The specification of the '660 patent specifically states that minimum

backspin is achieved at (Y3, Z3) and maximum backspin at (Y1, Z1). **A240** (2:48-51), **A242** (5:21-23). Y1 and Z1 are identified in the claims as “low Y” and “low Z” respectively and Y3 and Z3 are identified in the claims as “high Y” and “high Z” respectively.

The diagonal line within the Y-Z graph in Figure 5 begins at a (Y1, Z1) coordinate and extends as indicated by the arrow to a (Y3, Z3) coordinate. The plain language of claim 9 restated to include Y1, Z1, Y3 and Z3 coordinates is “to modify backspin, providing within said void space weighting means between a (Y1, Z1) coordinate to increase backspin to a (Y3, Z3) coordinate to decrease backspin. This correlates precisely with Figure 5.

Claims should be interpreted in view of the specification. See *Markman*, 52 F.3d at 979, 990 (instructing that claim language must not be examined in a vacuum, but by reference to the specification). The written description portion of the patent, or the specification, is the primary source to rely on in interpreting the claims. *Phillips*, 415 F.3d at 1317.

Thus, in replacing the phrase “low Y, low Z” with (Y1, Z1) and “high Y, high Z” with (Y3, Z3), the patentee does not import a limitation from the specification, but rather uses the specification to arrive at a claim construction that aligns with the inventor’s intent. See *Phillips*, 415 F.3d at 1316, 1321 (remarking that the claims can cover only the invented subject matter).

Claims should not be construed in a “lexicographic vacuum, but in the context of the specification and drawings”. *Toro Co.*, 199 F.3d at 1301.

In finding that claim 9 did not align with Figure 5 of the ‘660 patent (**A14** (lines 16-19)), the district court failed to examine the claim language with reference to the specification. In construing the language of claim 9 in view of the specification, as one must do, it is clear that a weighting strategy in accordance with the path shown in Figure 5 is claimed.

It was error for the district court to find that the limitation on the weighting path in new claim 20 was not an inherent limitation in claim 9.

3. The court erred in finding that the patent examiner’s suggestion to include the additional language in claim 20 during the *ex parte* reexamination, means that the limitation was not inherent in original claim 9.

The court determined that “[t]he patent examiner seems to have been assisting the patent owner in his endeavor to overcome Dammen and specifically suggested the inclusion of a more definite weighting path to ensure that it excluded the path taught by Dammen. The patent examiner did not conclude that this limitation was inherent in original claim 9 and neither does the Court.” **A15** (lines 2-6)

The court erred in concluding that just because a change was made to claim 9 during reexamination that the change must necessarily be substantive. The mere

fact that amendments are made to a claim during reexamination does not automatically mean that the amendments are substantive.

Whether amendments made to overcome rejections based on prior art are substantive depends on the nature and scope of the amendments, with due consideration "to the facts in any given case that justice will be done." *Laitram Corp.*, 952 F.2d 1357, 1361 (Fed.Cir.1991) (internal quotations omitted).

Just because a reexamined claim is not copied verbatim from the original claim, does not mean that the reexamined claim has been substantively changed. *Seattle Box Co.*, 731 F.2d at 827-28. The scope of the claims must be the same after reissue, not that the same words must be used. *Slimfold Mfg. Co.*, 810 F.2d at 1115.

There is no absolute rule for determining whether an amended claim is legally identical to an original claim. An amendment that clarifies the text of the claim or makes it more definite without affecting its scope is generally viewed as identical for the purpose of §252. *Kaufman Co.*, 807 F.2d at 977; *Tennant Co.*, 878 F.2d at 1417. Determination of whether a claim change during reexamination is substantive requires analysis of the scope of the original and reexamined claims in light of the specification, with attention to the references that occasioned the reexamination, as well as the prosecution history and any other relevant information. *Laitram*, 952 F.2d at 1362-63.

The additional phrase, “*an increase in a Z-axis value does not correspond to a decrease in the Y-axis value*” in claim 20, did not change the scope of original claim 9. The express language of claim 9 limits the path of the weighting strategy to movement “between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin” **A243** (7:67 – 8:2). The ‘660 patent defines the term “low Y, low Z” coordinate as the “Y1, Z1” coordinate. Similarly the “high Y, high Z” coordinate is defined as the “Y3, Z3” coordinate. **A240** (2:48-51), **A242** (5:21-23). Claim 9, therefore limits the path of the weighting strategy “between Y1, Z1 to increase backspin to Y3, Z3 to decrease backspin”.

As illustrated in sections VII.B.1 & 2 *supra*, the Y-axis value must either increase, to Y2 or Y3 or stay constant at Y1 as the Z-axis value increases from a (Y1, Z1) coordinate to a (Y3, Z3) coordinate. As such, the amendment to claim 20 merely states a claim limitation that is necessarily inherent in claim 9.

Thus, it was error for the district court to find that the scope of new claim 20 is not legally identical to the scope of claim 9 because claim 20 is not copied verbatim from original claim 9.

Conclusion and Statement of Relief Sought

For the foregoing reasons, the district court’s grant of summary judgment finding that original claim 9 is not substantially identical to new claim 20 subsequent to the *ex parte* reexamination should be reversed and this case

remanded with instructions to allow a trial on the merits.

Dated: October 19, 2015

Respectfully submitted,

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ADDENDUM

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7
8 **UNITED STATES DISTRICT COURT**
9 **SOUTHERN DISTRICT OF CALIFORNIA**

10 TRIPLE TEE GOLF, INC.,
11 a Florida corporation,

Plaintiff,

12 vs.

13
14 TAYLOR-MADE/ADIDAS,
15 a Delaware corporation,

Defendant.

Case No. 11-CV-2974 JLS (WVG)

**ORDER GRANTING
DEFENDANT'S MOTION FOR
SUMMARY JUDGMENT**

(ECF No. 40)

16
17 Presently before the Court is Defendant Taylor Made Golf Company, Inc.'s
18 ("Defendant") Motion for Summary Judgment ("MSJ"). (ECF No. 40). Also before the
19 Court is Plaintiff Triple Tee Golf, Inc.'s ("Plaintiff") Response in Opposition to (ECF
20 No. 43) and Defendant's Reply in Support of (ECF No. 44) the Motion. A hearing on
21 the motion was held on February 19, 2015. Having considered the parties arguments
22 and the law, the Court **GRANTS** Defendant's Motion for Summary Judgment.

23 **BACKGROUND**

24 In 2011, Plaintiff filed the initial complaint in this matter, alleging infringement
25 of two patents—United States Patent Nos. 7,128,660 ("the '660 patent") and 7,854,667
26 ("the '667 patent"), which are both titled "Method of Golf Club Performance
27 Enhancement and Articles Resultant Therefrom." (ECF No. 1.) Then, in 2012, the
28 parties filed a Joint Motion to Stay Litigation Pending *Inter Partes* Reexamination of

1 the Patents-in-Suit. (ECF No. 26.) The Court granted the Joint Motion. (ECF No. 27.)

2 On July 20, 2012, Defendant filed a request for an *inter partes* reexamination of
3 the two patents. (MSJ 9, ECF No. 40-1.) The result of the *inter partes* reexamination
4 was the cancellation of all claims of the ‘660 patent except claims 7, 9 and 15. (*Id.* at
5 9–10.) Then, on February 6, 2013, Defendant filed a request for an *ex parte*
6 reexamination of claim 9. (*Id.* at 10.) After the patent examiner rejected claim 9 as
7 anticipated by another patent, Dammen, Plaintiff “responded to the office action by
8 cancelling claims 9 and 15, amending claim 7, and adding several new claims.” (*Id.* at
9 11.) Plaintiff later cancelled some of the newly added claims, and added three new
10 claims. (*Id.* at 11–12.)

11 Ultimately, the United States Patent and Trademark Office’s reexaminations of
12 the patents resulted “in invalidation of all but four claims of the ‘660 patent and
13 invalidation of all claims of the ‘667 patent.” (Status Report 2,¹ ECF No. 29.) The four
14 remaining claims in the ‘660 patent include original claim 7, and claims 20, 21, and 22,
15 which Plaintiff added during the *ex parte* reexamination of the ‘660 patent.² (*Id.* at
16 4–5.) Of the remaining claims, claim 20 is an independent claim, while claims 7, 21
17 and 22 are dependent claims. (*Id.* at 5.)

18 The ‘660 patent “relates to ‘a method of selectably varying the center of gravity
19 and distribution of weighting in a void space in the head of a golf club,”” based on the
20 needs of a particular golfer. (MSJ 7, ECF No. 40-1 (quoting ‘660 Patent 1:19–21).) The
21 ‘660 patent focuses on having a variety of positions for the center of gravity,
22 distribution of weight, or weights within the head of the club. (‘660 Patent 1:64–67.)
23 There are 27 potential locations in the void space located on an orthonormal matrix
24

25 ¹For ease of reference, all page numbers cited to are the CM/ECF numbers at the top
26 of the page.

27 ²Defendant argues that new claim 20 is essentially the same as old claim 9, which the
28 patent examiner rejected as anticipated by Dammen. (MSJ 12 n.3, ECF No. 40-1.) The only
difference is additional language about weighting strategy (c)(I), “which had nothing to do
with the Examiner’s rejection of claim 9 based on Dammen.” (*Id.*) Accordingly, Defendant
states it will argue that claim 20 is invalid over Dammen if this case proceeds. (*Id.*)

1 comprised of three axes (x, y and z). (*Id.* at 2:1–3.) Depending on a golfer’s needs, he
2 or she can adjust the center of gravity, distribution of weight, and/or weights
3 accordingly. (*See id.* at 1:64–2:5.) For example, according to the patent specification,
4 a golfer can modify his or her backspin by weighting means at a low Y, low Z
5 coordinate to increase backspin, or at a high Y, high Z coordinate to decrease backspin.
6 (*Id.* at 2:48–51.) Changing the weighting means can affect backspin, penetration,
7 trajectory and hook or slice. (*Id.* at 2:62–67.)

8 In its First Amended Complaint (“FAC”), Plaintiff alleges that Defendant
9 directly infringed the ‘660 patent by, “among other things, making, using, importing,
10 advertising, offering for sale to the public, [and] selling” various golf clubs. (FAC ¶ 19,
11 ECF No. 31.) Plaintiff also alleges that Defendant “actively [induced] its agents,
12 distributors, and end users, among others, to employ products that infringe the method
13 of [the ‘660 patent],” thereby inducing patent infringement. (*Id.* at ¶ 27.) Finally,
14 Plaintiff alleges Defendant committed contributory patent infringement “by, among
15 other things, selling one or more articles or materials such as weight adjustment guides,
16 booklets, videos and tools, which enable infringement of the patented method of the
17 [‘660 patent], especially such materials adapted for use in the infringement of
18 Plaintiff’s Patent that are not staple articles of commerce.” (*Id.* at ¶ 35.)

19 Defendant responds in the MSJ that it has “discontinued the manufacture and
20 importation of each of the Accused Products.” (MSJ 13, ECF No. 40-1.) Defendant
21 further explains that it has not manufactured in this country nor imported into this
22 country any of the Accused Products since before the issuance of the *Ex Parte*
23 Reexamination Certificate of the ‘660 patent. (*Id.*) Defendant also has no plans to
24 manufacture or import any of the Accused Products in the future. (*Id.*)

25 LEGAL STANDARD

26 I. Summary Judgment

27 Summary judgment is appropriate where the Court is satisfied that “there is no
28 genuine issue as to any material fact and that the moving party is entitled to a judgment

1 as a matter of law.” Fed. R. Civ. Pro. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317,
2 322 (1986). Material facts are those that may affect the outcome of the case. *Anderson*
3 *v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A genuine issue of material fact
4 exists only if “the evidence is such that a reasonable jury could find for the nonmoving
5 party.” *Id.* When the Court weighs the evidence to be presented by the parties, “[t]he
6 evidence of the nonmovant is to be believed, and all justifiable inferences are to be
7 drawn in [his] favor.” *Id.* at 255.

8 The initial burden of establishing the absence of a genuine issue of material fact
9 falls on the moving party. *Celotex*, 477 U.S. at 323. The movant can carry his burden
10 in two ways: (1) by presenting evidence that negates an essential element of the
11 nonmoving party’s case; or (2) by demonstrating to the Court that the nonmoving party
12 “failed to make a sufficient showing on an essential element of her case with respect
13 to which she has the burden of proof.” *Id.* at 322–23.

14 Once the moving party satisfies this initial burden, the nonmoving party must set
15 forth specific facts showing that there is a genuine issue for trial. *Celotex*, 477 U.S. at
16 324. To do so, the nonmoving party must “do more than simply show that there is
17 some metaphysical doubt as to material facts.” *Matsushita Elec. Indus. Co. v. Zenith*
18 *Radio Corp.*, 475 U.S. 574, 586 (1986). Rather, to survive summary judgment, the
19 nonmoving party must “make a showing sufficient to establish the existence of [every]
20 element essential to that party’s case, and on which that party will bear the burden of
21 proof at trial.” *Celotex*, 477 U.S. at 322. Furthermore, the nonmoving party cannot
22 oppose a properly supported motion for summary judgment by “rest[ing] on mere
23 allegations or denials of his pleadings.” *Anderson*, 477 U.S. at 256. Rather, the
24 nonmoving party must identify those facts of record that would contradict the facts
25 identified by the movant. *Id.* at 256–57.

26 **II. Legal Effect of Reexamination**

27 “Any proposed amended or new claim determined to be patentable and
28 incorporated into a patent following a reexamination proceeding will have the same

1 effect as that specified in [35 U.S.C. § 252] for reissued patents.” 35 U.S.C. § 307(b).

2 35 U.S.C. § 252 provides that if

3
4 the claims or the original and reissued patents are substantially identical,
5 [surrender of the original patent] shall not affect any action then pending
6 nor abate any cause of action then existing, and the reissued patent, to
7 the extent that its claims are substantially identical with the original
8 patent, shall constitute a continuation thereof and have effect
9 continuously from the date of the original patent.

10 Accordingly,

11 [a] patentee of a reexamined patent is entitled to infringement damages,
12 *inter alia*, for the period between the date of issuance of the original
13 claims and the date of issuance of the reexamined claims if the original
14 and reexamined claims are identical. Reexamined claims are identical to
15 their original counterparts if they are without substantive change.
16 Furthermore, in determining whether substantive changes have been
17 made, [the court] must discern whether the scope of the claims are
18 identical, not merely whether different words are used. If substantive
19 changes have been made to the original claims, the patentee is entitled
20 to infringement damages only for the period following the issuance of
21 the reexamination certificate.

22 *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1346 (Fed. Cir. 1998) (internal quotations
23 and citations omitted). “An amendment that clarifies the text of the claim or makes it
24 more definite without affecting its scope is viewed as identical for the purpose of §
25 252.” *Bloom Eng’g Co., Inc. v. N. Am. Mfg. Co., Inc.*, 129 F.3d 1247, 1250 (Fed. Cir.
26 1997) (internal citations omitted).

27 Whether a reexamined claim and an original claim are substantially identical is
28 a question of law for the Court to decide. *See Laitram*, 163 F.3d at 1346–47 (citing
29 *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en
30 banc)). To determine whether a reexamined claim is substantially identical to an
31 original claim, “it is necessary to analyze the claims . . . in light of the particular facts,
32 including the prior art, the prosecution history, other claims, and any other pertinent
33 information.” *Id.* at 1347 (internal quotations and citations omitted). This includes
34 following “the well-established principle that a court may not import limitations from

1 the written description into the claims.” *Id.*

2 35 U.S.C. § 252 also establishes intervening rights for reissued patents, which
3 apply to reexamined patents as well. *See* 35 U.S.C. § 307(b). 35 U.S.C. § 252 reads that

4
5 [a] reissued patent shall not abridge or affect the right of any person or
6 that person’s successors in business who, prior to the grant of a reissue,
7 made, purchased, offered to sell, or used within the United States, or
8 imported into the United States, anything patented by the reissued
9 patent, to continue the use of, to offer to sell, or to sell to others to be
used, offered for sale, or sold, the specific thing so made, purchased,
offered for sale, used or imported unless the making, using, offering for
sale, or selling of such thing infringes a valid claim of the reissued
patent which was in the original patent.³

10 This provision gives an accused infringer “the absolute right to use or sell a product
11 that was made, used or purchased before the grant of the reissue [or reexamined] patent
12 as long as this activity does not infringe a claim of the reissue patent that was in the
13 original patent.” *BIC Leisure Products, Inc. v. Windsurfing Int’l, Inc.*, 1 F.3d 1214,
14 1220–21 (Fed. Cir. 1993). This means that “[a]s long the use or sale of the accused
15 product does not infringe a claim of the reissue patent that was also in the original
16 patent, the owner of the reissued patent has no recourse under the Patent Act.” *Id.* at
17 1221. This provision gives an alleged infringer an absolute intervening right “to
18 continue what would otherwise be infringing activity” in regard to those products that
19 were made, purchased, or used prior to the grant of the reissue patent or reexamination
20 certificate. *Seattle Box Co. v. Indus. Crating & Packaging, Inc.*, 756 F.2d 1574, 1579
21 (Fed. Cir. 1985); *see id* at 1221.

22 ANALYSIS

23 New claim 20, which requires selectably employing two of the four claimed
24 weighting strategies, “is most similar to original dependent claim 9,” because “of the
25 two [original] independent claims in the ‘660 patent, claims 1 and 11, only claim 1
26

27 ³35 U.S.C. § 252 also establishes an equitable intervening right which a court may
28 afford to an accused infringer that first makes or uses accused products after reissue, but who
made substantial preparation prior to reissue. Defendant “is not asserting equitable intervening
rights at this time.” (MSJ 17–18, ECF No. 40-1.)

1 (from which claim 9 depended) [also] recited selectably employing two of four claimed
2 weighting strategies.” (MSJ 12, ECF No. 40-1.) Additionally, new claim 20 requires
3 and, of the original claims, only claim 9 “required that ‘at least one selected strategy
4 includes weighting means not contiguous with any inner surface of said void space.’”
5 (*Id.* (quoting Clark Dec’l ¶ 19, ECF No. 40-2).) Accordingly, the MSJ compares and
6 contrasts the new claims with original, dependent claim 9.

7 Defendant argues that Plaintiff is not entitled to infringement damages for the
8 time prior to the issuance of the reexamined claims of the ‘660 patent because new
9 claim 20 is not substantially identical to original claim 9, nor are amended claim 7 and
10 new claims 21 and 22 substantially identical to original claim 9. (MSJ 18, 26, ECF No.
11 40-1.) Accordingly, Defendant argues that it is entitled to summary judgment on each
12 of Plaintiff’s counts in the FAC. (*Id.* at 27.) The Court agrees.

13 **I. New Claim 20**

14 In regard to new claim 20, Defendant argues that it differs from original claim
15 9 in two ways based on newly added language, which reads, “an increase in a Z-axis
16 value does not correspond to a decrease in the Y-axis value.”⁴ (*Id.* at 18.) First,
17 Defendant argues this added phrase imposes a new requirement that the location of the
18 weighting means along the Y and X axes be adjustable. (*Id.*) Second, Defendant argues
19 that this also requires that the “adjustment is restricted to a path that defines a non-
20 decreasing function between low Y, low Z coordinate to a high Y, high Z coordinate.”
21 (*Id.*)

22 **A. Adjustable Weighting Means**

23 Utilizing the general principles of claim construction, Defendant explains that
24 claim terms are generally “given their ‘ordinary and customary’ meaning, which is ‘the
25 meaning that the term would have to a person of ordinary skill in the art in question at
26 the time of the invention.” (*Id.* at 19 (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303,

27
28 ⁴Plaintiff agrees that new claim 20 and original claim 9 are identical except for the
addition of this phrase. (Resp. in Opp’n 7, ECF No. 43.)

1 1312–13 (Fed. Cir. 2005) (*en banc*)).) A claim should be read ““in the context of the
2 entire patent, including the specification,”” but the court should not import limitations
3 from the specification into the claims. (*Id.* (quoting *Phillips*, 415 F.3d at 1313).) Courts
4 consider ““the words of the claims themselves, the remainder of the specification, the
5 prosecution history, and extrinsic evidence concerning relevant scientific principles,
6 the meaning of technical terms, and the state of the art” to discern a claim’s ordinary
7 and customary meaning. (*Id.* (quoting *Phillips*, 415 F.3d at 1314).) In determining a
8 claim’s meaning, a court first considers the words of the claim themselves, then may
9 look to other intrinsic evidence, such as the patent specification and the prosecution
10 history, and then, if necessary, extrinsic evidence. (*See* Resp. in Opp’n 8–9, ECF No.
11 43 (citing *Vitronics Corp. v. Concentronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).)

12 Applying these principles, Defendant explains that the newly added phrase,
13 specifically “an increase in the Z-axis value,” must mean that the weighting means can
14 be adjusted because to increase the Z-axis value requires the weighting means already
15 be “present in the golf club head at another location having a lower Z-axis value.” (*Id.*
16 at 19–20.) The adjustment may correspond to a change in the location of the weighting
17 means along the Y-axis, but may not cause a decrease in the location along the Y-axis.
18 (*Id.*)

19 Defendant argues that this differs from original claim 9,⁵ which “lacked any
20 language indicating that the weighting means must be adjustable within the claimed
21 ranges.” (*Id.* at 20 (quoting Beach Dec’l ¶ 20, ECF No. 40-3).) Original claim 9 read
22 ““providing within said void space weighting means between a low Y, low Z
23 coordinate to increase backspin to a high Y, high Z coordinate”” to decrease backspin.
24 (*Id.* (quoting Beach Dec’l ¶ 20, ECF No. 40-3).) Defendant argues that the original
25 claim’s strategy “was satisfied by simply placing a weighting means at the desired
26 location during design and manufacture, without any implication that its location might
27

28 ⁵Reference to original claim 9 also refers to original claim 1, upon which original claim 9 depended.

1 be adjusted.” (*Id.* (citing Beach Dec’l ¶ 20, ECF No. 40-3).) Defendant supports this
2 argument by noting that all except for one of the ‘660 patent’s embodiments disclose
3 “club heads with fixed weights,” such that they could not be adjusted. (*Id.*; *see e.g.*,
4 Clark Dec’l ¶ 4, Ex. A, ECF No. 40-2).)

5 Defendant contends that the patent examiner confirmed their interpretation of
6 original claim 9 during the *ex parte* reexamination of claim 9, by stating that ““the
7 claim does not recite adjustability of the weights for different weighting strategies”” in
8 response to Plaintiff’s argument that the claim contemplated adjustable weighting
9 means. (*Id.* (quoting Clark Dec’l ¶ 13, Ex. D at p. 56, ECF No. 40-2).) Defendant also
10 asserts that the Board of Patent Appeals and Interferences (now the Patent Trial and
11 Appeal Board) (“Board”), issued a similar statement in regard to claim 1 of the ‘667
12 patent, which “was a continuation-in-part of the ‘660 patent” and which “recited a
13 similar limitation to the weighting strategy” outlined in original claim 9. (*Id.* at 20–21.)
14 The Board, in response to Plaintiff’s assertion that the weighting elements were
15 adjustable, held “that the claims of the ‘667 patent ‘do not require adjustability’ or
16 embody ‘any requirement of a capability of adjusting or moving a weight element along
17 or within the claimed range.’”⁶ (*Id.* at 21 (quoting Clark Dec’l ¶ 23, Ex. K at p. 127,
18 ECF No. 40-2).)

19 Defendant concludes that because new claim 20 provides for adjustable
20 weighting means along the Z and Y axes where original claim 9 did not, the new claim
21 is not substantially identical to the original claim. (*Id.* at 21.)

22 Plaintiff responds to Defendant’s argument that original claim 9 did not require
23 adjustable weighting means by refuting the Declaration of Todd Beach with its own
24 declaration submitted by John P. Gilling, the inventor. (*See* Resp. in Opp’n 13, ECF
25

26 ⁶Plaintiff argues that any reliance on the ‘667 patent prosecution history should be
27 disregarded because the ‘667 patent recited the term “securing” whereas the ‘660 patent recited
28 the term “provided,” and, therefore, the conclusion that the ‘667 patent did not require
adjustable weighting means has no bearing on whether the original claims in the ‘660 patent
require adjustable weighting means. (Resp. in Opp’n 15, ECF No. 43.) The Court declines to
consider the ‘667 patent prosecution history.

1 No. 43.) Gilling explains that the original claim recited adjustability of the weighting
2 means based on the phrases “‘to modify back spin,’ ‘to modify ball penetration’ and ‘to
3 modify ball trajectory’” in parts (c)(I), (c)(ii), and (c)(iii) of the original claim. (Gillig
4 Dec’l ¶ 20, ECF No. 43-2.) Gillig asserts that the term modify “inherently indicates a
5 capability of adjustment,” as does the reference in the claim to the term “between,”
6 which allows the coordinate of the weighting means to fall within a given range. (*Id.*)
7 Gillig further argues against Defendant’s contention that the original claim allowed for
8 the placement of the weighting means at a given spot during design and manufacture,
9 “without ability to adjust its location,” by asserting that the continued use of the terms
10 “modify” and “between,” along with Figure 5 in the ‘660 patent “should render beyond
11 question that [the ‘660 patent] always related to adjustable weighting locations within
12 a 3x3x3 orthonormal matrix of weighting elements.” (*Id.* at ¶ 21.)

13 As an initial matter, the Court confirms that determining whether a reexamined
14 claim and an original claim are substantially identical is a question of law for the Court
15 to decide. *See id.* at 1346–47 (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d
16 967, 970–71 (Fed. Cir. 1995) (en banc)). Accordingly, Plaintiff’s suggestion that
17 disagreements among the declarations submitted by each party preclude a finding of
18 summary judgment are misplaced. The Court may look to the extrinsic evidence
19 submitted by each side to construe a term if it cannot discern a claim’s meaning based
20 on the words themselves or the other intrinsic evidence. *Vitronics Corp. v.*
21 *Conceptronic, Inc.*, 90 F.3d 1576, 1585 (Fed. Cir. 1996). Given the hierarchy of
22 evidence and the requirement that extrinsic evidence only be relied upon if necessary,
23 it is not even certain that the Court would consider the declarations in its construction
24 of new claim 20 and old claim 9.

25 The parties do not disagree that new claim 20 requires adjustable weighting
26 means, but do disagree over whether original claim 9 also required such adjustability.
27 The Court agrees with Defendant that new claim 20 requires adjustable weighting
28 means whereas old claim 9 did not require such adjustability and, therefore, that new

1 claim 20 is not substantially identical to original claim 9.

2 The Court finds that Gillig's reliance on the term "modify" in original claim 9
3 unpersuasive because, as Defendant asserts in its Reply, "modify" refers to altering
4 backspin, ball penetration, and ball trajectory, and not modifying the placement of the
5 weighting means. (Reply 7, ECF No. 44.) Similarly, the Court concludes that Gillig's
6 contention that the word "between" in original claim 9 represents ability to adjust the
7 weighting means within a given range equally unpersuasive because that simply means
8 that the weighting means could have been placed within the range during design and
9 manufacture. Original claim 9 recites "providing . . . weighting means between a low
10 Y, low Z coordinate . . . to a high Y, high Z coordinate." ('660 Patent 7:66-8:2.)
11 Nowhere in section (c)(I) of original claim 9, nor in the rest of the original claim is
12 there a suggestion that the weighting means must be adjustable; they must simply be
13 provided within the given range. Accordingly, an analysis of the words in original
14 claim 9 leads the Court to conclude that it did not require adjustable weighting means.

15 Additionally, the '660 patent prosecution history confirms this conclusion.
16 During the reexamination of the '660 patent, the patent examiner stated that "[t]he
17 claim does not recite adjustability of the weights for different weighting strategies."
18 (Clark Dec'l, Ex D, Office Action in *Ex Parte* Reexamination: Non-Final Rejection 55,
19 ECF No. 40-2.) Lastly, the Court's analysis accords with the general principle that
20 limitations found solely in the patent specification are not imported into claims for
21 purposes of claim construction. Gillig's statement that Figure 5 from the '660 patent
22 specification somehow supports a finding of adjustability, even if correct, cannot be
23 used to import limitations into the claim. In light of the Court's conclusion that original
24 claim 9 did not require adjustable weighting means, the Court finds that new claim 20
25 and original claim 9 are not substantially identical.

26 ///

27 ///

28 ///

1 **B. Restrictions on Adjustment of Weighting Means**

2 Defendant further argues that new claim 20 differs from original claim 9 because
3 it “clearly contemplates a path for adjusting the weighting means in which the Z-axis
4 value increases in order to decrease backspin,” and requires that ““an increase in Z-axis
5 value cannot correspond to a decrease in Y-axis value.”” (MSJ 21, ECF No. 40-1.) This
6 “defines a non-decreasing function between the Z- and Y-axis values of the weighting
7 means.” (*Id.* (citing Beach Dec’1 ¶ 24, ECF No. 40-3).) An increase in the Z-axis value
8 “precludes a decrease in the Y-axis value of the weighting means, implicitly allowing
9 the Y-axis value to increase or remain constant.” (*Id.* (citing Beach Dec’1 ¶ 24, ECF
10 No. 40-3).)

11 Defendant asserts that original claim 9 did not contain the restriction that as the
12 value of the Z-axis increases, the value of the Y-axis must increase or stay constant.
13 (*Id.* at 22.) Original claim 9 “allowed the weighting means to be positioned anywhere
14 between a low Y, low Z coordinate to a high Y, high Z coordinate,” which “meant that
15 the weighting means could be provided just about any place within the golf club head.”
16 (*Id.* (citing Beach Dec’1 ¶ 25, ECF No. 40-3).)

17 Defendant argues that Plaintiff’s assertion that new claim 20 does not change the
18 scope of original claim 9 is incorrect because the only way for Plaintiff to be correct
19 is if “the *only* way to achieve decreasing backspin between a low Y, low Z coordinate
20 to a high Y, high Z coordinate . . . would be to follow a path defined by a non-
21 decreasing function,” such that backspin would only decrease if an increase in the
22 value of the Z axis does not correspond with a decrease in the value of the Y-axis. (*Id.*)
23 Defendant explains that decreasing backspin can be achieved by increasing the value
24 along the Z-axis with a corresponding decrease along the Y-axis, as long as “the
25 backspin change from a positive movement along the Z-coordinate is larger than the
26 backspin change from a negative movement along the Y-coordinate.”⁷ (*Id.* at 24.)

27
28 ⁷Defendant provides a comprehensive explanation of the center of gravity of golf club
heads and its affect on backspin to show that a decrease in backspin need not be the result of
a increase along the Z-axis without any corresponding decrease along the Y-axis. (See MSJ

1 Therefore, Defendant argues that new claim 20 has a different scope than original claim
2 9 because the limitation imposed by new claim 20 was not inherent in original claim
3 9. (*Id.* at 26.) Accordingly, Defendant argues that the new claim is not substantially
4 identical to the original claim in regard to the restrictions it imposes on the path of the
5 weighting means. (*Id.*)

6 Plaintiff, in contrast, argues that the phrase added to new claim 20 does not
7 change the scope of original claim 9 by restricting the adjustable weighting means to
8 a specific path, which, it contends, Gillig's declaration proves. (*See* Resp. in Opp'n 13,
9 ECF No. 43.) Gillig asserts that the added language in new claim 20 "simply assured
10 that Strategy (c)(I) could not possibly include any aspect of the strategy of Dammen,"
11 which calls for an increase along the Z-axis to correspond with a decrease along the Y-
12 axis, and, "therefore did not narrow, broaden or change the scope of original Claims
13 1 and 9." (Gillig Dec'l ¶ 22, ECF No. 43-2.) Gillig agrees that the new phrase can be
14 described as "'a non-decreasing function between a low Y, low Z coordinate to a high
15 Y, high Z coordinate,'" and concurs that this function is not the only way to change
16 backspin. (*Id.* at ¶¶ 24, 27 (quoting Beach Dec'l ¶ 24, ECF No. 40-3).) However, Gillig
17 states that the '660 patent "requires concurrent incrementation of weighting along each
18 Y and Z axis *and prohibits any deviation or excursion* from that such strategy," and
19 that the original patent never permitted an increase in the Z axis to correspond with a
20 decrease in the Y axis. (*Id.* at ¶ 32 (emphasis in original).) Plaintiff briefly concludes
21 that Figure 5 in the '660 patent shows that "the weighting path of Claim 9 was always
22 restricted." (Resp. in Opp'n 13, ECF No. 43.)

23 Similar to the first issue, the parties agree that new claim 20 restricts the path of
24 the weighting means, that the added language represents a non-decreasing function, and
25 that the non-decreasing function is not the only way to modify backspin. The parties
26

27 _____
28 22-26, ECF No. 40-1.) Defendant also notes it has determined that the weighting strategy at
issue, as recited in original claim 9 and new claim 20, is incorrect because a low Y, low Z
coordinate decreases backspin and a high Y, high Z coordinate increases backspin, but that
does not change its analysis regarding the scope of the two claims. (*Id.* at 23, n.6.)

1 disagree, however, over whether the restricted path recited in new claim 20 was
2 inherent in original claim 9.⁸ The Court concludes that restriction on the path of the
3 weighting means was not inherent in the original claim and that, therefore, new claim
4 20 is not substantially identical to original claim 9 for this additional reason.

5 Beginning with an analysis of the words of the claims themselves, it is clear that
6 original claim 9 did not recite the limitation included in new claim 20 which reads “in
7 which an increase in a Z-axis value cannot correspond to a decrease in Y-axis value.”
8 (‘660 Ex Parte Reexamination Certificate 2:15–18.) The words of original claim 9
9 themselves do not limit the path for the weighting means. Plaintiff argues that
10 notwithstanding the lack of the recitation of this limitation in the original claim, the
11 ‘660 patent specification, particularly Figure 5, make this limitation inherent in the
12 original claim such that the amendment merely clarified the original claim. This
13 argument, however, is contrary to the well-established principle that prohibits courts
14 from importing limitations found only in the patent specification into the claims.
15 *Laitram*, 163 F.3d at 1347 (noting “the well-established principle that a court may not
16 import limitations from the written description into the claims”). The Court finds that
17 nothing in the original claims suggest that the weighting means have to be placed at a
18 specific location in accordance with the path shown in Figure 5 and that, therefore, new
19 claim 20 is not substantially identical to original claim 9.

20 The ‘660 patent prosecution history is also instructive. That original claim 9 was
21 cancelled at least partly on the ground that it was anticipated by Dammen is telling.
22 Contrary to Plaintiff’s belief that the weighting path in original claim 9 was always
23 restricted per Figure 5, the patent examiner, in response to then-pending claim 28,
24 which was similar to original claim 9, explicitly “advised the Patent Owner’s rep to
25 amend claim 28 to add recitation along the lines that a weighting strategy of increasing
26 the Z axis does not include decreasing the Y-axis,” the very path Dammen teaches.

27
28 ⁸The parties also disagree over the precise meaning of the added language in new claim 20; however, “the main dispute is whether any such limitation was inherent in original claim 9.” (Reply 9, ECF No. 44.)

1 (Clark Dec'l, Ex. F, *Ex Parte* Reexamination Interview Summary 79, ECF No. 40-2.)
2 The patent examiner seems to have been assisting the patent owner in his endeavor to
3 overcome Dammen and specifically suggested the inclusion of a more definite
4 weighting path to ensure that it excluded the path taught by Dammen. The patent
5 examiner did not conclude that this limitation was inherent in original claim 9 and
6 neither does the Court.

7 In addition, the difference between new claim 20 and original claim 9 is similar
8 to the situation in *Bloom*, in which the patent owner added limiting words to claims to
9 overcome prior art. *Bloom Eng'g Co., Inc.*, 129 F.3d at 1250–51. In that case, the patent
10 owner argued that the newly added words “merely clarified” what was already implicit
11 in the claims based on the patent specification. *See id.* at 1250. The court, however,
12 affirmed the district court’s finding that the newly added limitation was not recited in
13 the original claims, that the addition was necessary to overcome prior art, and that the
14 claims were sufficiently narrowed and limited by the additional language that it
15 constituted a substantive change. *Id.* at 1251. In light of the words of the claims
16 themselves, the patent prosecution history, and the guidance provided by the Federal
17 Circuit in *Bloom*, the Court concludes that new claim 20 limits the scope of the original
18 claim and does not, as Plaintiff suggests, merely clarify the claim.

19 **II. Amended Claim 7 and New Claims 21 and 22**

20 Defendant argues that amended claim 7, and new claims 21 and 22 are also not
21 substantially identical to original claim 9 because they are all dependent upon new
22 claim 20. (MSJ 26, ECF No. 40-1.) Accordingly, because these three claims
23 “incorporate all of the limitations of claim 20,” they are different in scope than original
24 claim 9. (*Id.* (citing 35 U.S.C. § 112(d) (“A claim in dependent form shall be construed
25 to incorporate by reference all the limitations of the claim to which it refers.”).)

26 Plaintiff initially argued that new claims 21 and 22 should not be summarily
27 dealt with based on the analysis of new claim 20 because, unlike new claim 20, they
28 should be compared with original claim 11 (part (b)) and original claim 12 (part (e)(iii))

1 respectively. (Opp’n 15, ECF No. 43.) However, at the hearing on the instant motion,
2 Plaintiff’s counsel agreed that if the Court finds that new claim 20 is not substantially
3 identical to original claim 9, then the other remaining claims follow suit.

4 In light of the fact that amended claim 7 and new claims 21 and 22 depend on
5 new claim 20, which the Court, as explained above, finds is not substantially identical
6 to original claim 9, the Court concludes that these claims are also not substantially
7 identical to original claim 9. A dependent claim incorporates “by reference all the
8 limitations of the claim to which it refers,” so new claims 21 and 22, even if most
9 similar to original claims 11 and 12, also require comparison to original claim 9 (and
10 original claim 1 for reasons explained above) as a result of their dependence. 35 U.S.C.
11 § 112(d). The comparison to original claim 9 is the same regardless of whether it is
12 brought about by analyzing amended claim 7 or new claims 20, 21 or 22. Therefore, the
13 Court finds that amended claim 7, and new claims 21 and 22, are not substantially
14 identical to the original claim.

15 **III. Summary Judgment**

16 Based on the conclusion that none of the current claims of the ‘660 patent are
17 substantially identical to original claim 9, Defendant argues that it is entitled to
18 summary judgment on all three of Plaintiff’s counts. (MSJ 27, ECF No. 40-1.)

19 First, Defendant asserts that because none of the claims in the reexamined ‘660
20 patent are substantially identical to the original ‘660 patent, “the reexamined ‘660
21 patent only has effect from the issuance of the *Ex Parte* Reexamination Certificate on
22 June 12, 2014.” (*Id.* (citing 35 U.S.C. §§ 252, 307(b)).) Accordingly, Defendant argues
23 that Plaintiff does not have a viable claim for any alleged direct infringement prior to
24 June 12, 2014. (*Id.*) Defendant further contends that it has “an absolute intervening
25 right from June 12, 2014 to continue to use, offer to sell, and sell any Accused Products
26 that were made in the U.S., or imported into the U.S., before that date,” such that it
27 cannot be liable for direct infringement with respect to products made or imported
28

1 before the issuance of the *Ex Parte* Reexamination Certificate.⁹ (*Id.* (citing *BIC*
2 *Leisure Products*, 1 F.3d at 1220-21).) Defendant also argues that because it has not
3 manufactured in the U.S., nor imported into the U.S., any new Accused Products since
4 June 12, 2014, Plaintiff has no viable claim against Defendant for ongoing direct
5 infringement. (*Id.* at 27–28.)

6 Next, Defendant argues that Plaintiff’s claims for indirect and contributory
7 infringement must also fail because “[t]he law is clear that one cannot be liable for
8 indirect infringement without evidence of direct infringement by third parties.” (*Id.* at
9 28 (citing *Joy Tech., Inc. v. Flakt, Inc.*, 6 F.3d 770, 774 (Fed. Cir. 1993) (“Liability for
10 either active inducement of infringement or for contributory infringement is dependent
11 upon the existence of direct infringement.”)).) Defendant explains that each of its
12 distributors, resellers, and end user-customers have the same absolute intervening
13 rights under 35 U.S.C. §§ 252 and 307(b) as it does, such that there are also no acts of
14 direct infringement by third parties. (*Id.* at 28–29.) If there is no direct infringement,
15 then, Defendant argues, Plaintiff’s claims for indirect infringement must also fail. (*Id.*
16 at 29.)

17 In light of the Court’s finding that new claim 20 is not substantially identical to
18 old claim 9, the Court concludes that Defendant is entitled to summary judgment as to
19 all three of Plaintiff’s counts in its FAC. A finding that the new claims are not
20 substantially identical to the original claims precludes recovery for infringement from
21 anytime prior to the issuance of the reexamination certificate on June 12, 2014.

23 ⁹Plaintiff argues, in contrast, that Defendant does not have an absolute intervening right
24 because Defendant did not rely on any “perceived infirmities” in the original patent in making
25 its decision to manufacture, sell, and import the accused products. (Resp. in Opp’n 20, ECF
26 No. 43.) To support this argument, Plaintiff relies on an unreported district court case, *Quad*
27 *Envtl. Technologies v. Union Sanitary Dist.*, 17 U.S.P.Q. 2d 1667 (N.D. Cal. 1990), which has
28 been reversed, in which the judge denied intervening rights on the ground that Defendant did
not establish that it relied on infirmities in the original patent. (*Id.*) Although it is unclear,
Plaintiff may be arguing that Defendant is not entitled to equitable intervening rights under 35
U.S.C. § 252, which the Court may award; however, Defendant never asserts that it is entitled
to equitable rights, but rather argues that it is entitled to absolute intervening rights also
outlined in 35 U.S.C. § 252. Regardless of Plaintiff’s intended purpose for including this
argument, the Court does not find it persuasive.

1 Plaintiff offers no evidence of infringement subsequent to the issuance of the
2 reexamination certificate. Further, without direct infringement there can be no indirect
3 infringement. *Joy Tech., Inc. v. Flakt, Inc.*, 6 F.3d 770, 774 (Fed. Cir. 1993) (“Liability
4 for either active inducement of infringement or for contributory infringement is
5 dependent upon the existence of direct infringement.”).

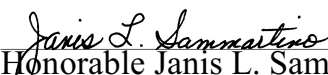
6 The Court concludes that Defendant and its distributors, resellers, and end user-
7 customers have absolute intervening rights pursuant to 35 U.S.C. § 252 because the
8 Accused Products were made or imported into the United States prior to the issuance
9 of the reexamination certificate. Defendant does not refute the fact that Plaintiff has not
10 made or imported Accused Products since June 12, 2104. Gillig does state that “all of
11 the R9 and R11 series [golf clubs] sold by Defendant could not have reached
12 distributors, retailers and end users by June 12, 2014;” however, the inquiry is whether
13 the Accused Products were made or imported into the United States by that date, not
14 whether they reached sellers or customers. *See BIC Leisure Products*, 1 F.3d at 1221
15 (absolute intervening rights cover “products already made at the time of reissue”).
16 Accordingly, Defendant has absolute intervening rights in regard to the Accused
17 Products.

18 CONCLUSION

19 For the aforementioned reasons, the Court finds that Defendant is entitled to
20 judgment as a matter of law, and **GRANTS** Defendant’s MSJ. The Clerk of the Court
21 shall close the file.

22 **IT IS SO ORDERED.**

23
24 DATED: March 23, 2015

25 
26 Honorable Janis L. Sammartino
27 United States District Judge
28



United States District Court

SOUTHERN DISTRICT OF CALIFORNIA

Triple Tee Golf, Inc., a Florida
Corporation

Plaintiff,

V.

Taylor-Made/Adidas, a Delaware
Corporation

Defendant.

Civil Action No. 11cv2974-JLS(WVG)

JUDGMENT IN A CIVIL CASE

Decision by Court. This action came to trial or hearing before the Court. The issues have been tried or heard and a decision has been rendered.

IT IS HEREBY ORDERED AND ADJUDGED:

that having considered the parties arguments and the law, the Court grants Defendant's Motion for Summary Judgment. Defendant is entitled to judgment as a matter of law.

Date: 3/23/15

CLERK OF COURT
JOHN MORRILL, Clerk of Court
By: s/ J. Ortiz

J. Ortiz, Deputy

(12) **United States Patent**
Gillig

(10) **Patent No.:** **US 7,128,660 B2**
(45) **Date of Patent:** **Oct. 31, 2006**

(54) **METHOD OF GOLF CLUB PERFORMANCE
ENHANCEMENT AND ARTICLES
RESULTANT THEREFROM**

(75) Inventor: **John P. Gillig**, Pompano Beach, FL
(US)

(73) Assignee: **Elizabeth P. Gillig Revocable Trust**,
Duxbury, MA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/818,899**

(22) Filed: **Apr. 3, 2004**

(65) **Prior Publication Data**
US 2004/0192466 A1 Sep. 30, 2004

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/383,532,
filed on Mar. 10, 2003, now abandoned, which is a
continuation-in-part of application No. 09/849,522,
filed on May 7, 2001, now Pat. No. 6,530,848.

(60) Provisional application No. 60/205,250, filed on May
19, 2000.

(51) **Int. Cl.**
A63B 53/00 (2006.01)
A63B 53/04 (2006.01)

(52) **U.S. Cl.** **473/324**; 473/409; 473/334;
473/340; 473/345

(58) **Field of Classification Search** 473/324-350,
473/290-291, 409
See application file for complete search history.

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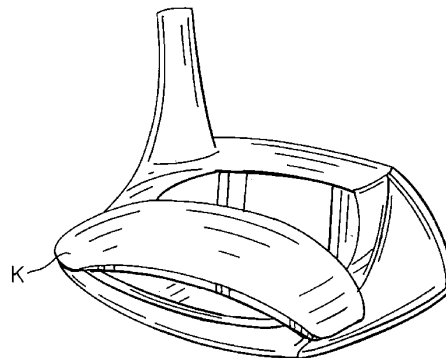
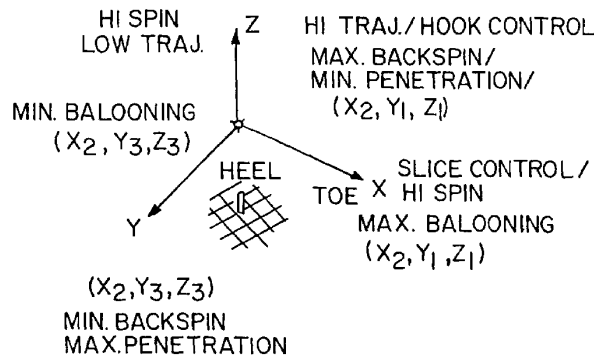
Primary Examiner—Sebastiano Passaniti

(74) *Attorney, Agent, or Firm*—Melvin K. Silverman; Yi Li

(57) **ABSTRACT**

The performance of a golf club may be enhanced through the
provision of a void space behind a face plate and above the
sole plate, to decrease club weight and provide single or
combinations of selectable weighting elements within volumetric
coordinates of an orthonormal matrix about the void space. The
weighting coordinates are provided in response to ball strike,
flight analysis and physiologic observation of the golf strike
swing. Ball backspin, trajectory, penetration and hook or slice
may be modified through the use of a definable weighting strategy.

19 Claims, 11 Drawing Sheets



US 7,128,660 B2

Page 2

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U.S. Patent

Oct. 31, 2006

Sheet 1 of 11

US 7,128,660 B2

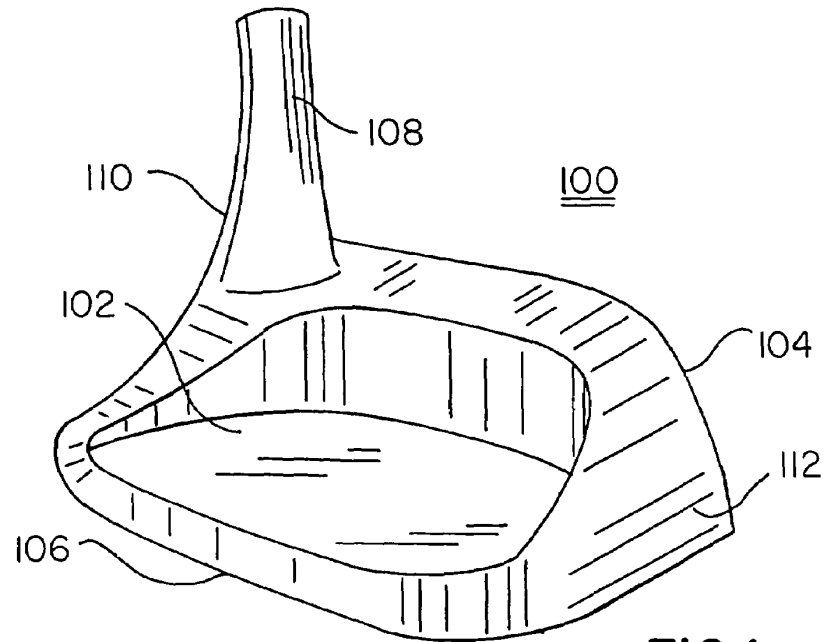


FIG. 1

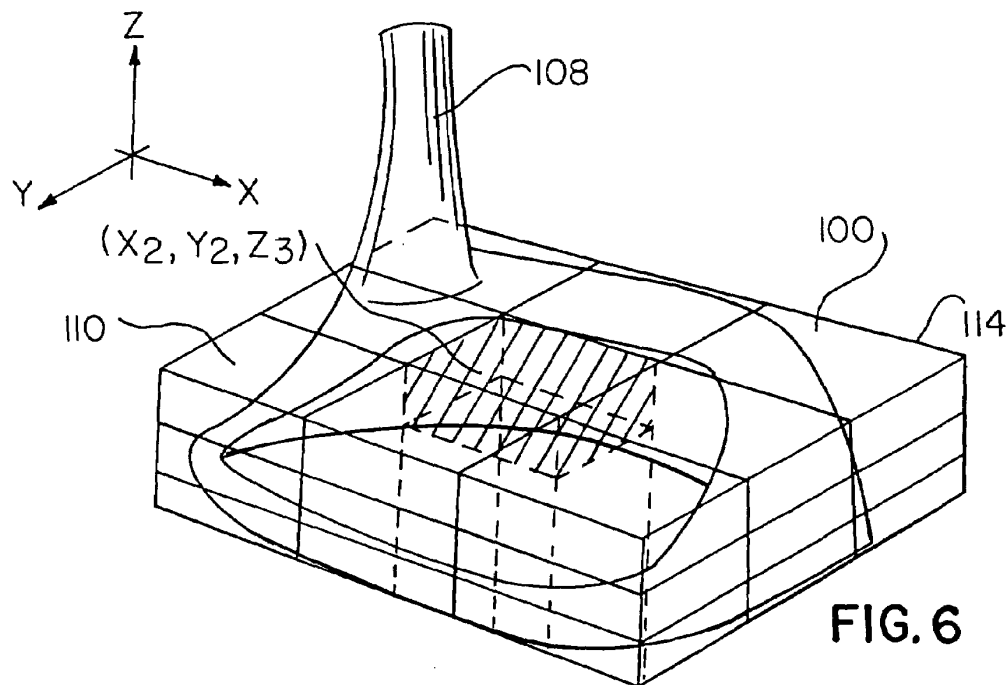


FIG. 6

U.S. Patent

Oct. 31, 2006

Sheet 2 of 11

US 7,128,660 B2

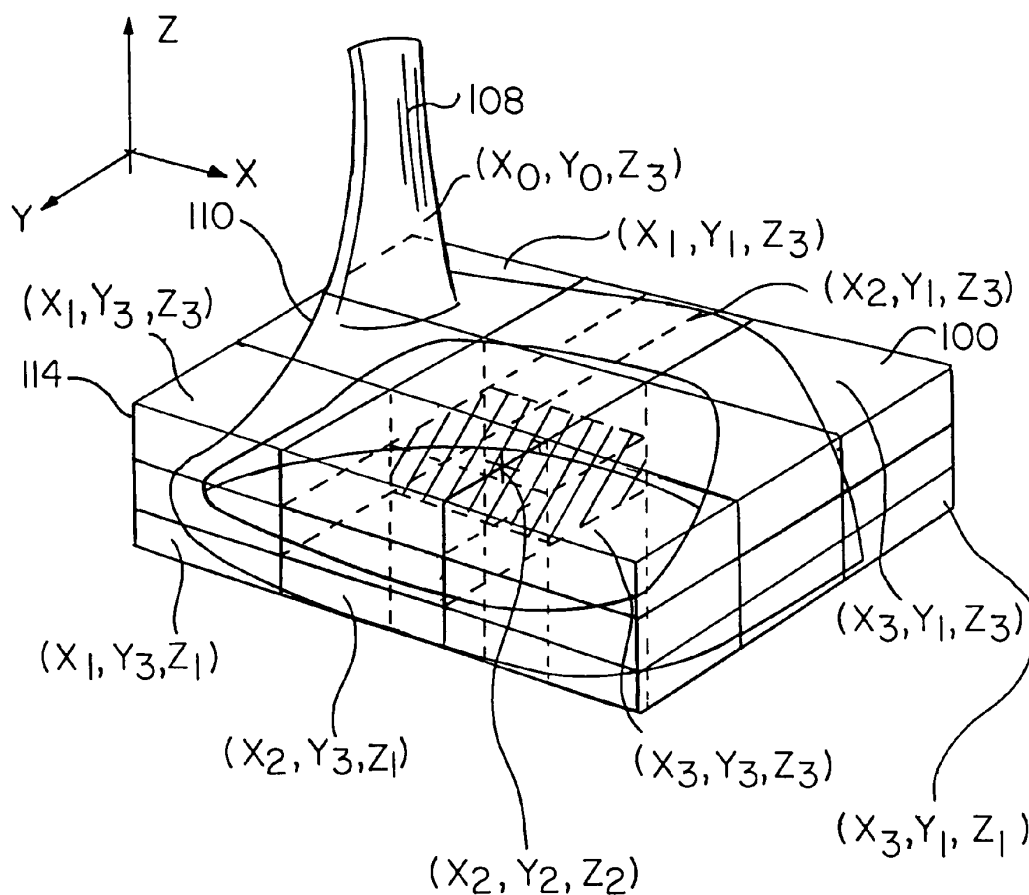


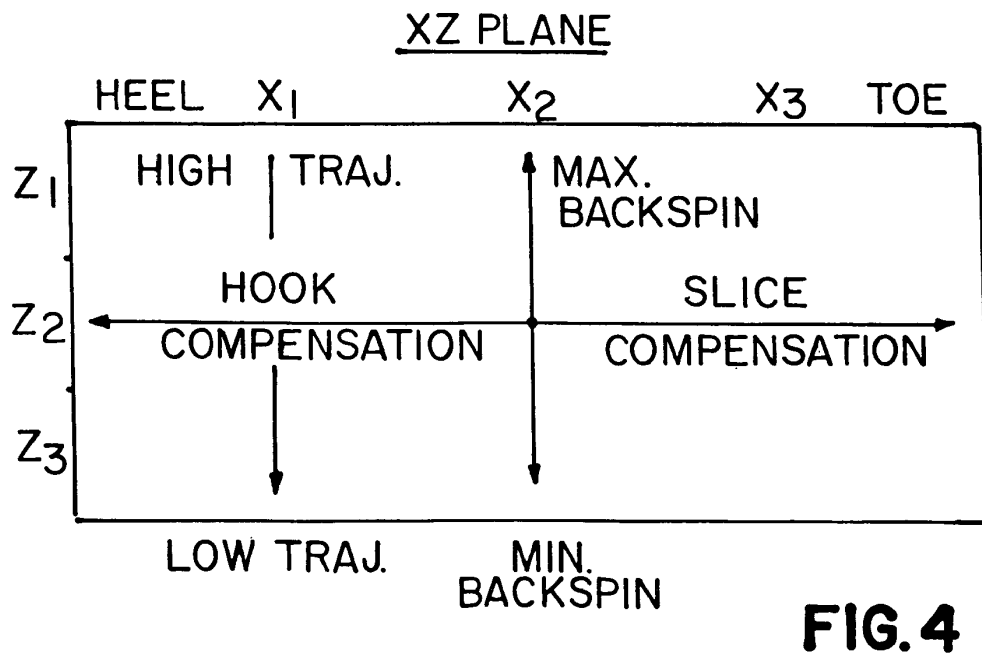
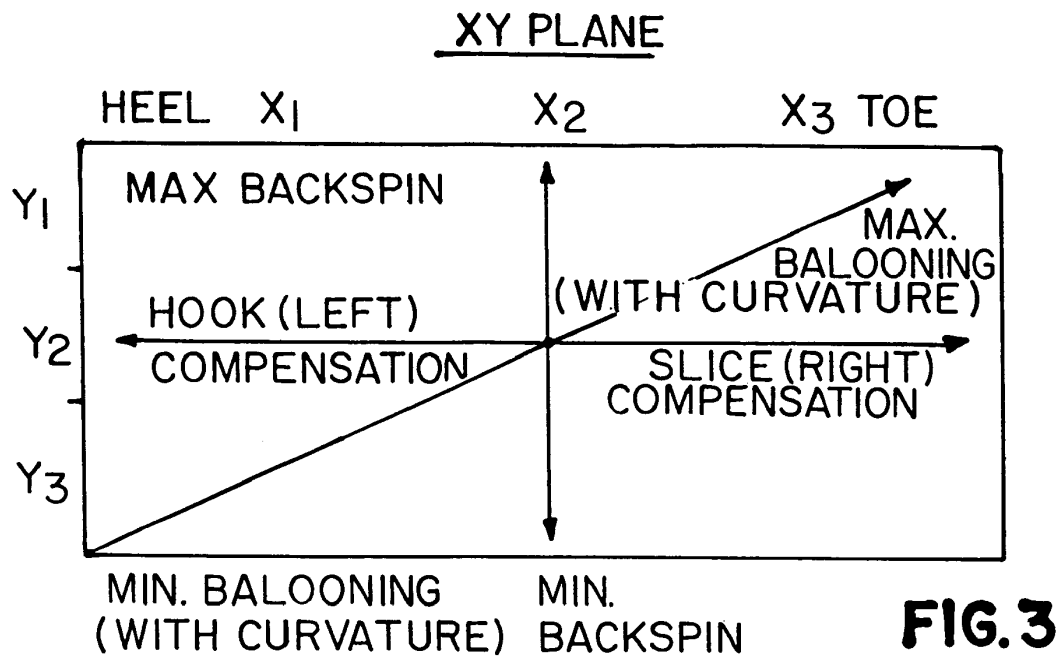
FIG. 2

U.S. Patent

Oct. 31, 2006

Sheet 3 of 11

US 7,128,660 B2

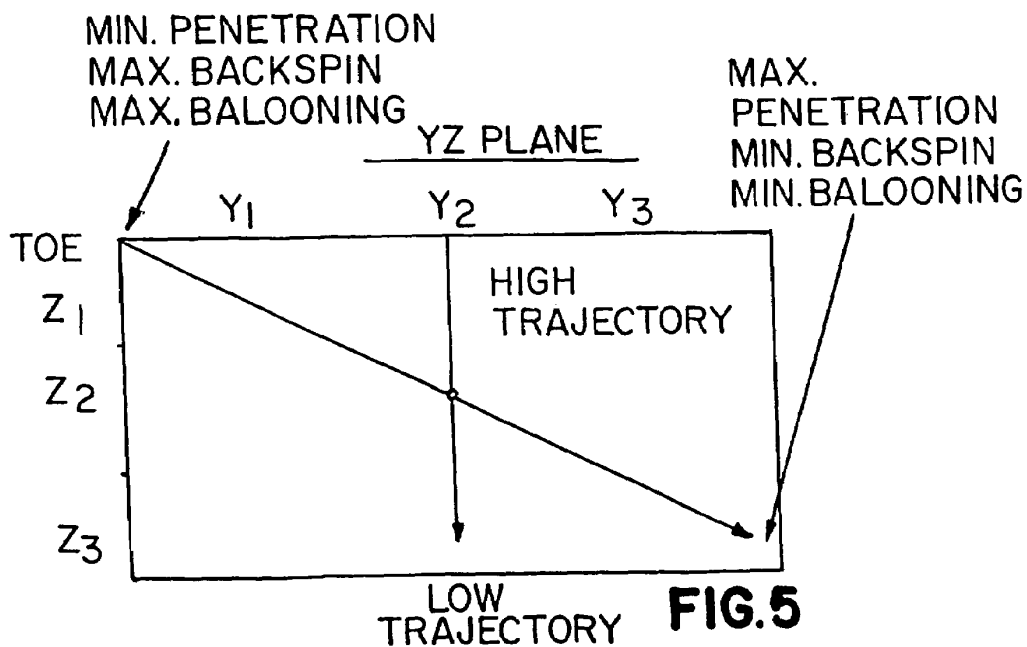
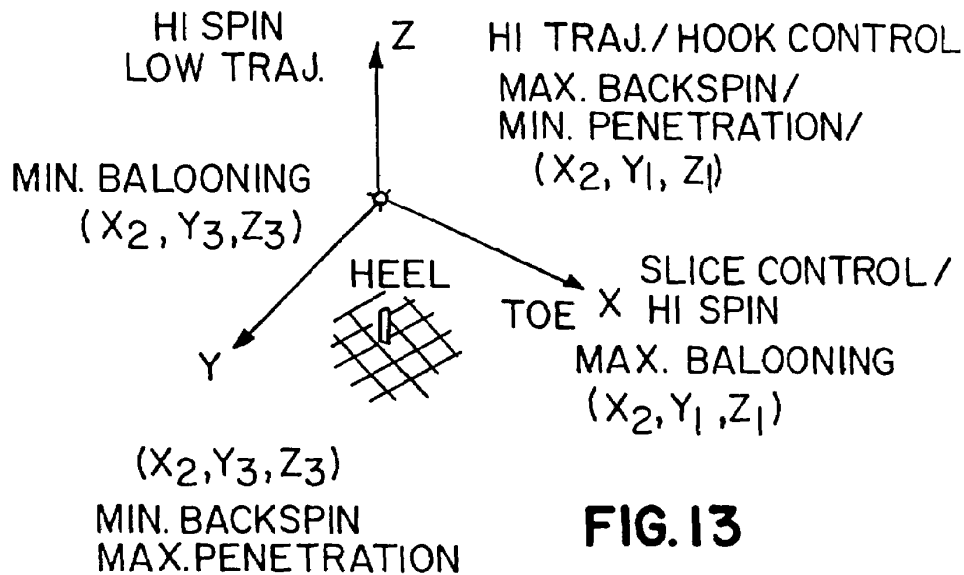


U.S. Patent

Oct. 31, 2006

Sheet 4 of 11

US 7,128,660 B2

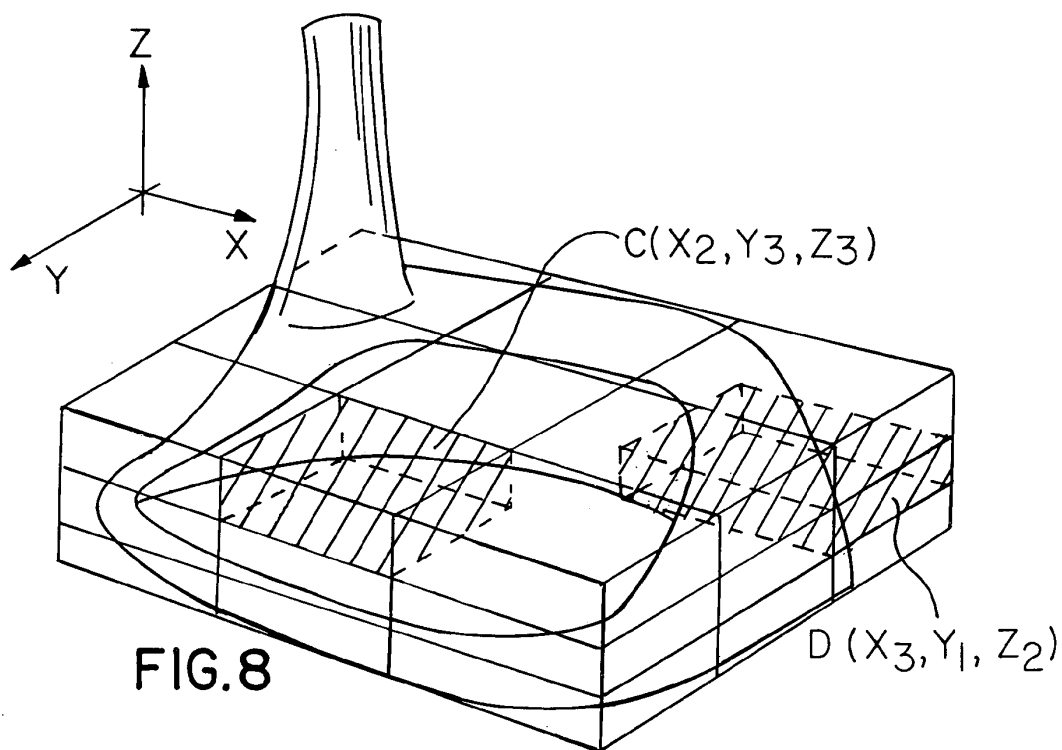
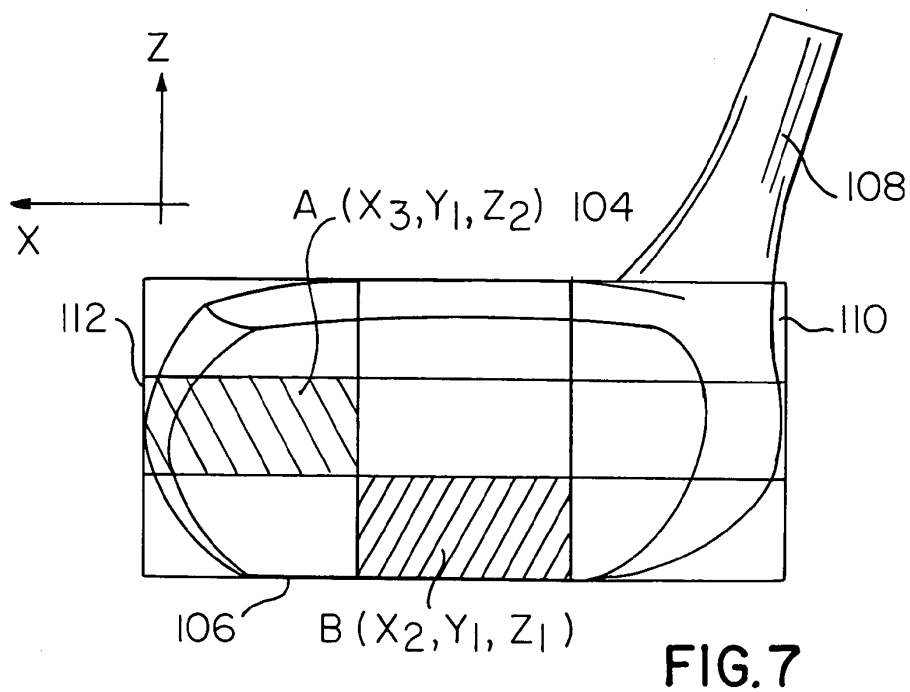


U.S. Patent

Oct. 31, 2006

Sheet 5 of 11

US 7,128,660 B2

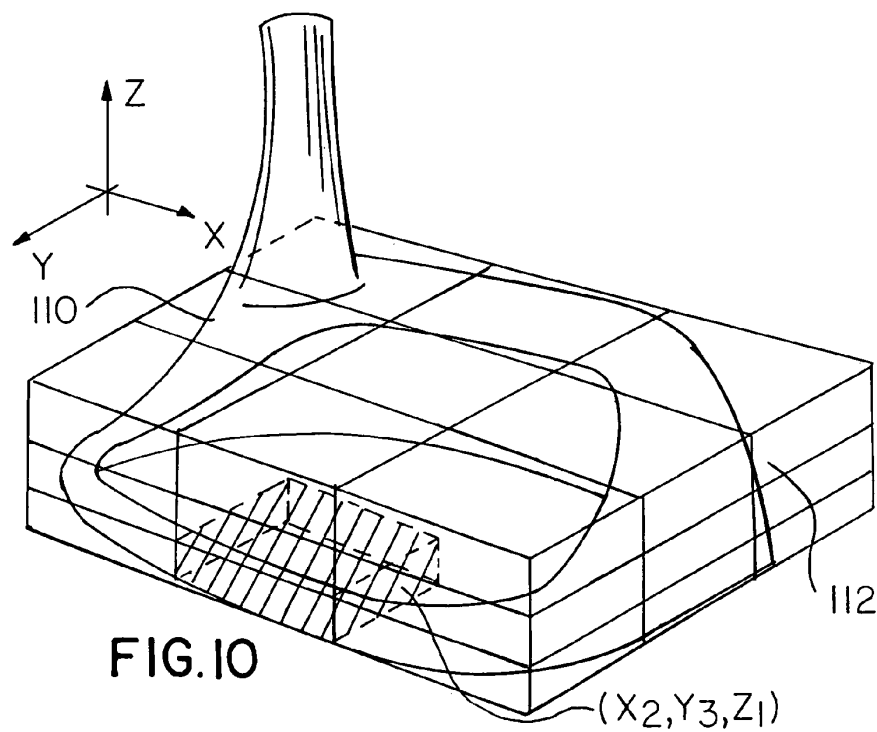
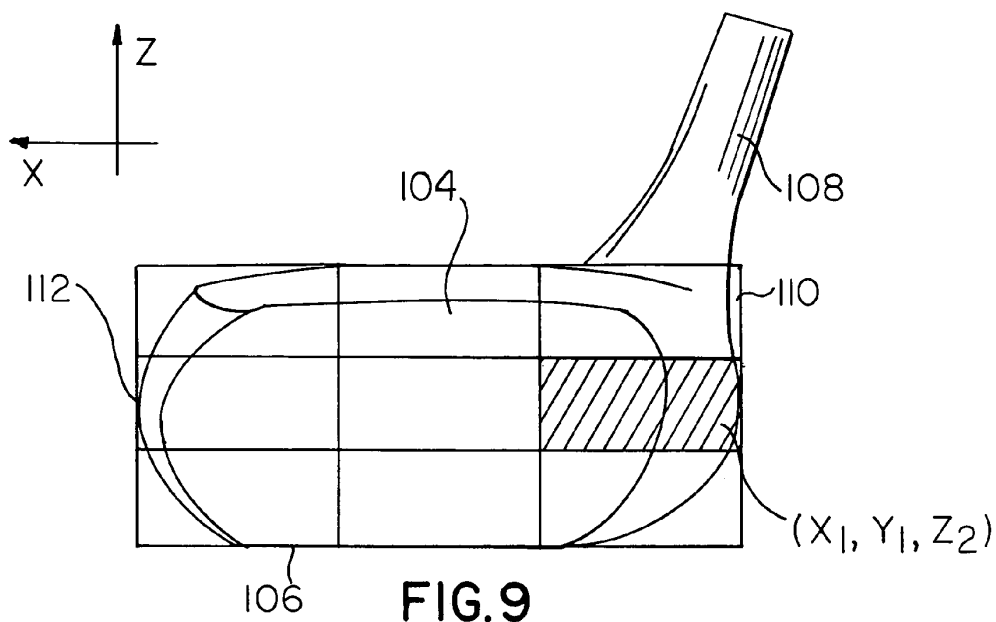


U.S. Patent

Oct. 31, 2006

Sheet 6 of 11

US 7,128,660 B2

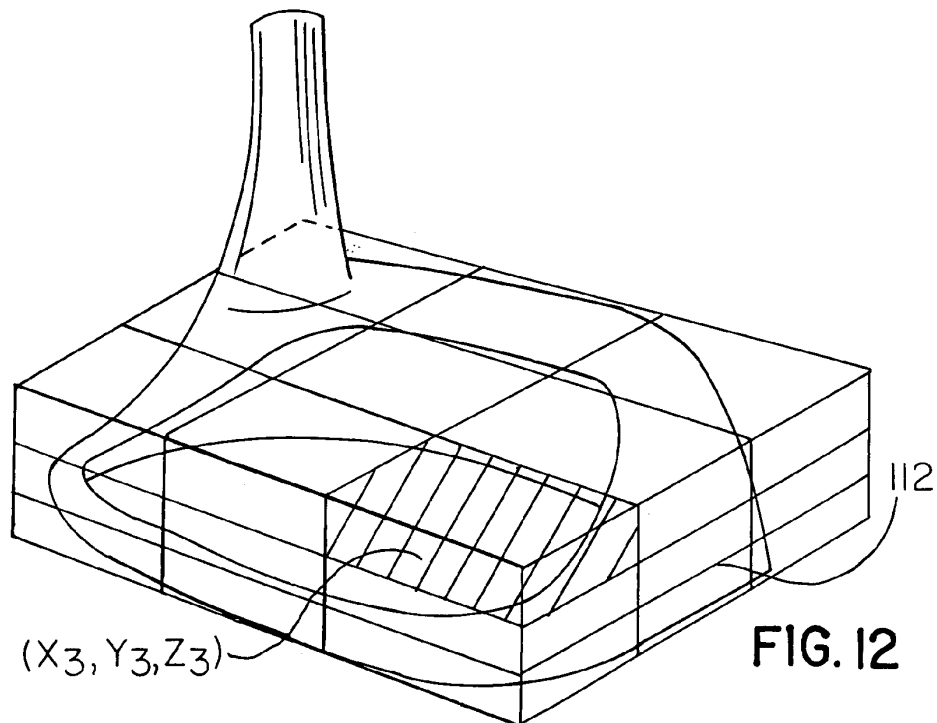
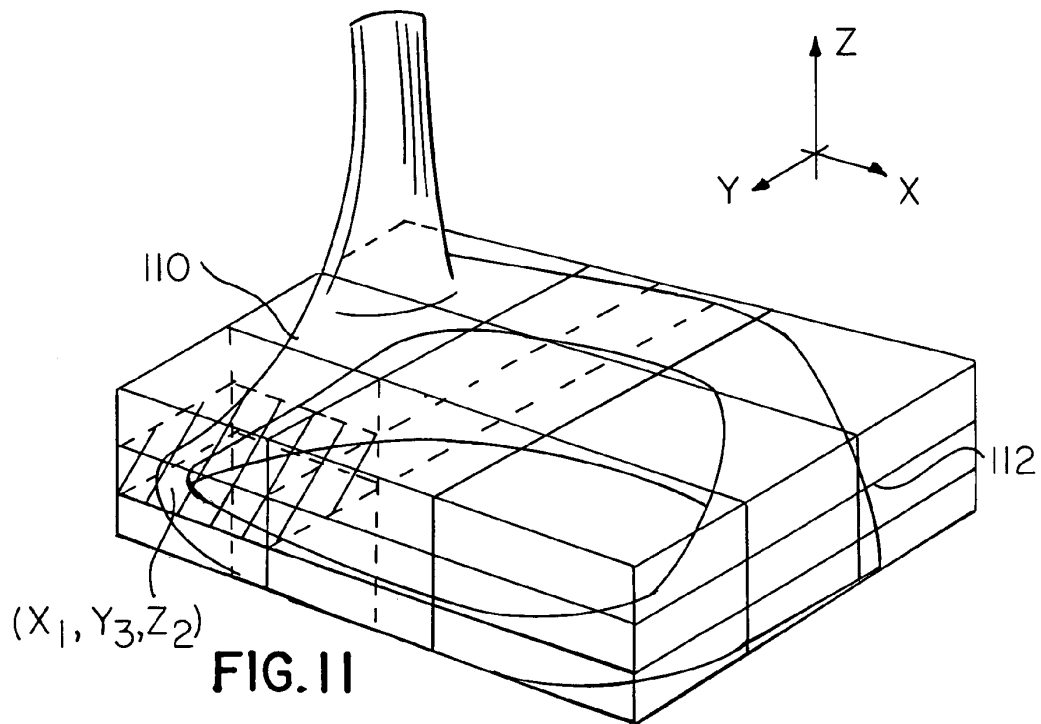


U.S. Patent

Oct. 31, 2006

Sheet 7 of 11

US 7,128,660 B2

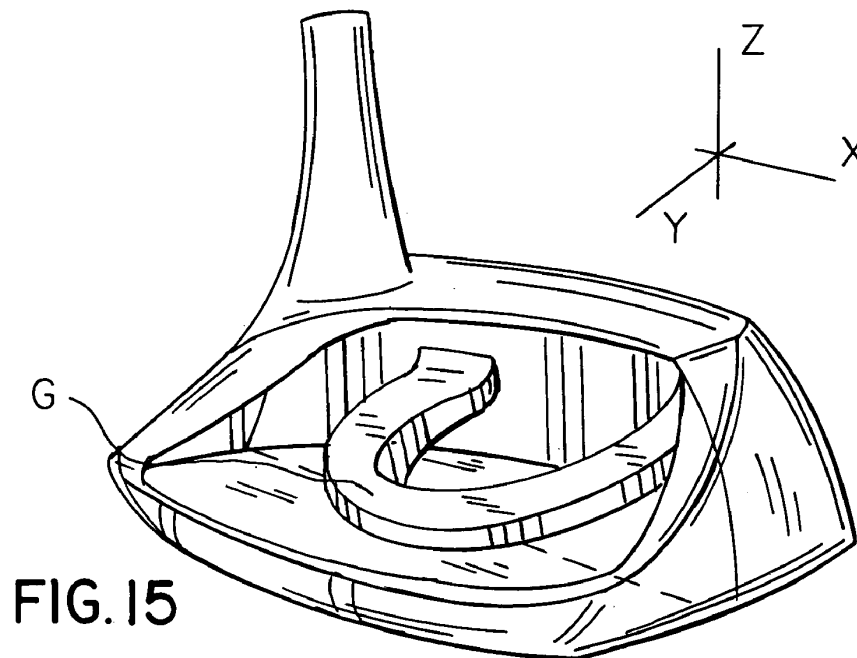
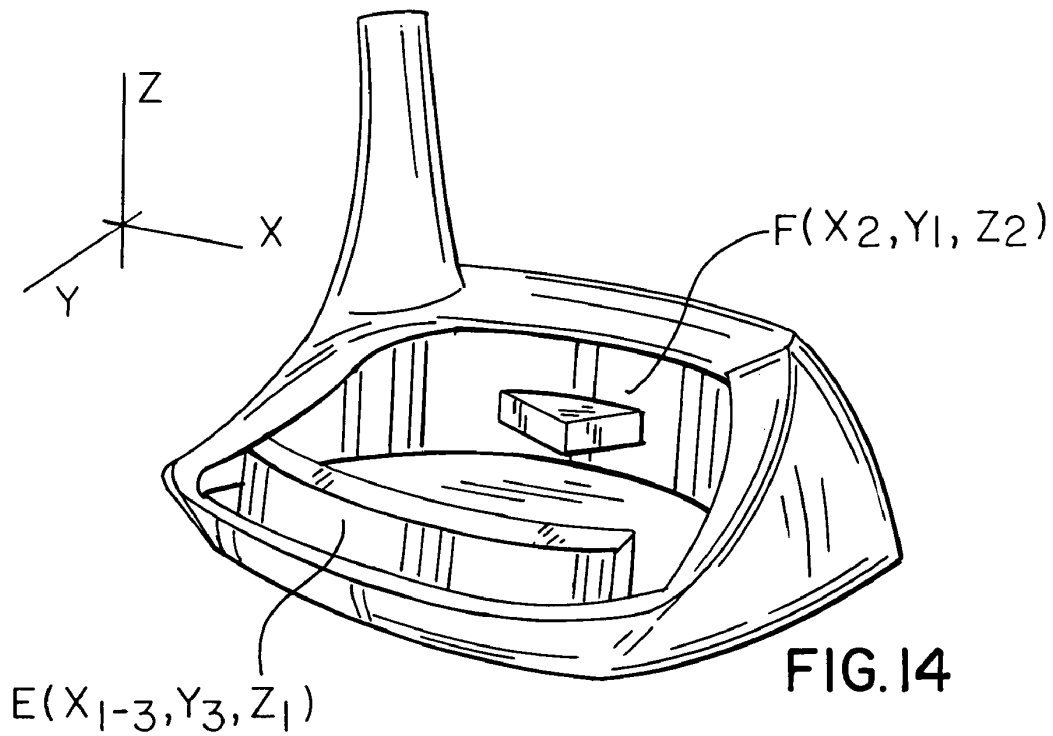


U.S. Patent

Oct. 31, 2006

Sheet 8 of 11

US 7,128,660 B2

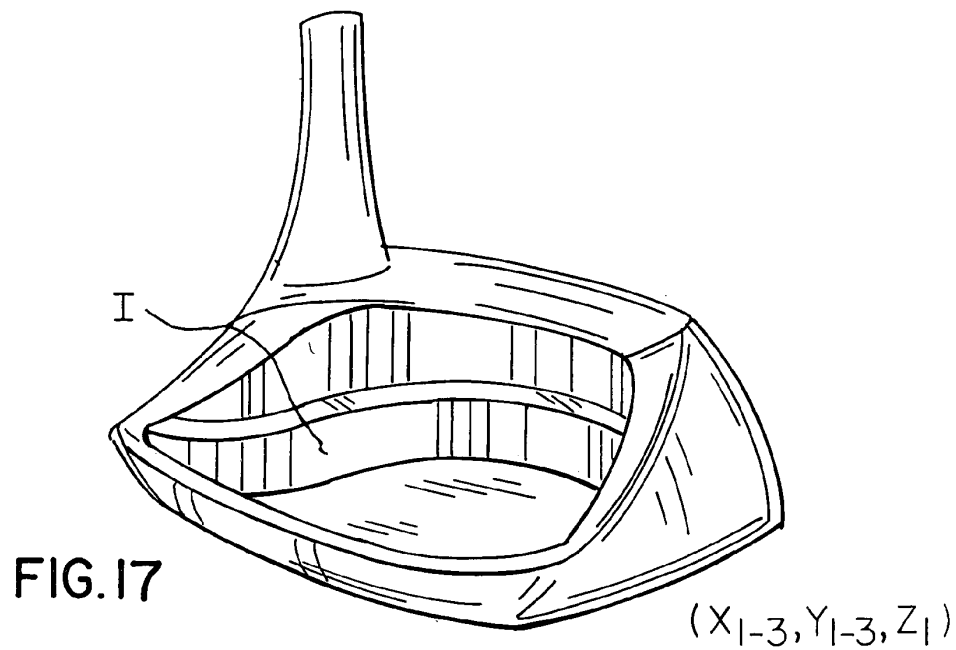
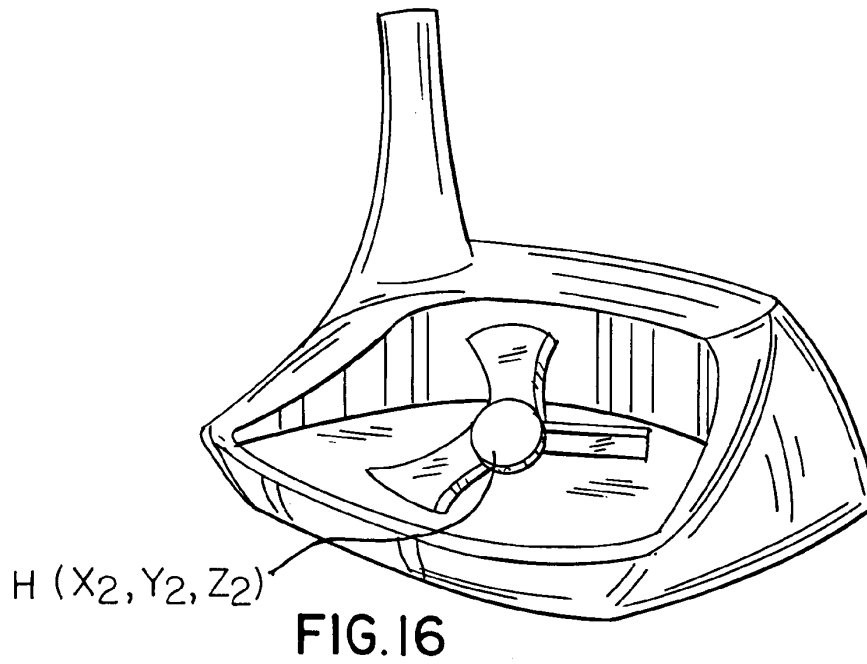


U.S. Patent

Oct. 31, 2006

Sheet 9 of 11

US 7,128,660 B2



U.S. Patent

Oct. 31, 2006

Sheet 10 of 11

US 7,128,660 B2

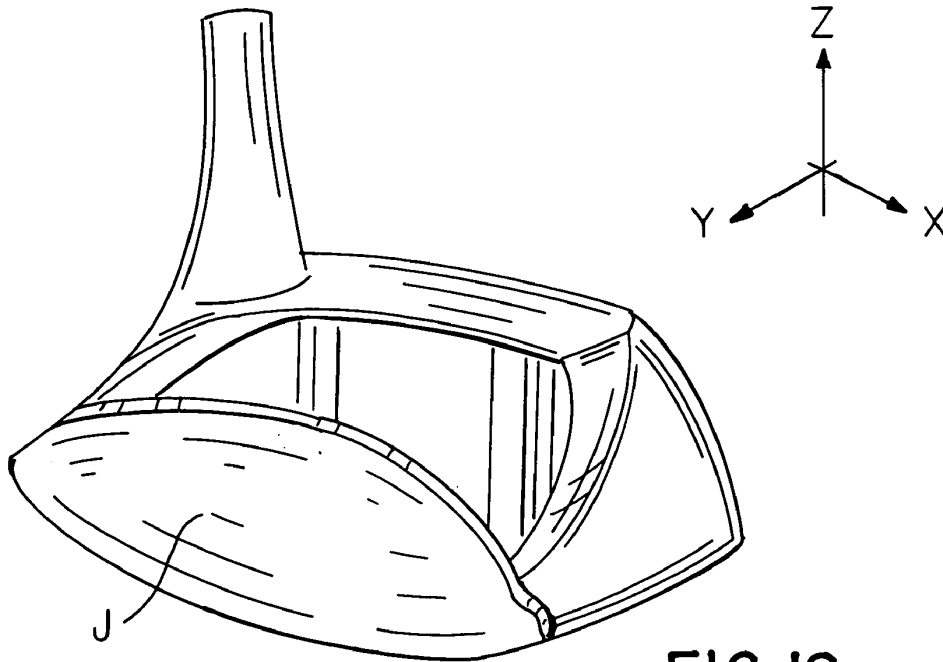


FIG. 18

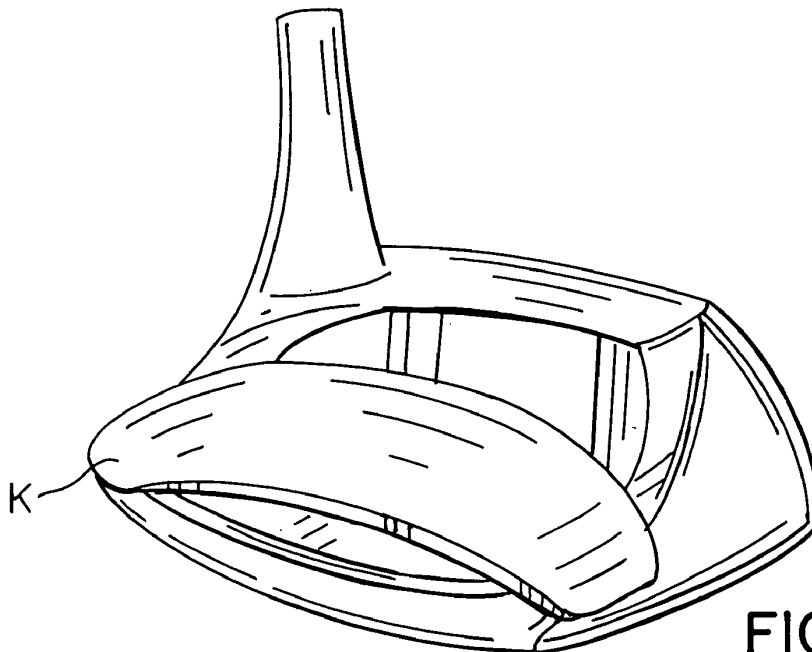


FIG. 19

U.S. Patent

Oct. 31, 2006

Sheet 11 of 11

US 7,128,660 B2

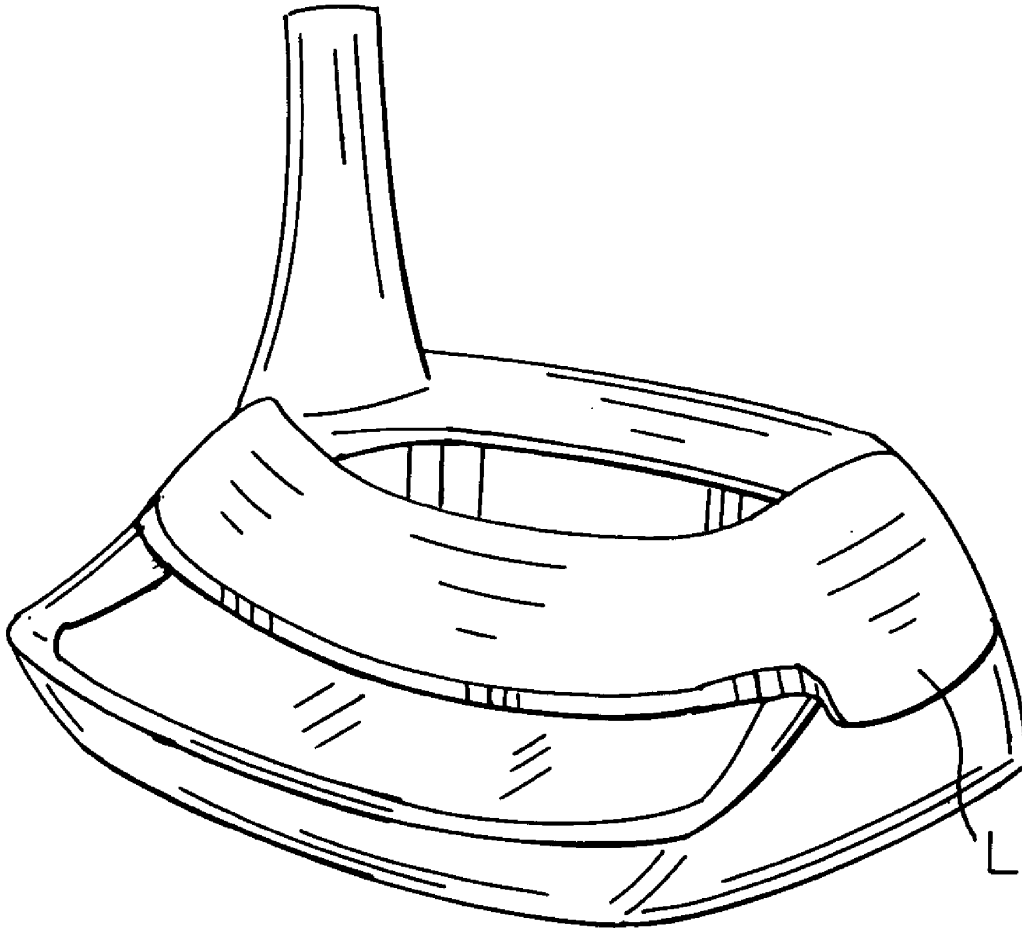


FIG. 20

US 7,128,660 B2

1

METHOD OF GOLF CLUB PERFORMANCE ENHANCEMENT AND ARTICLES RESULTANT THEREFROM

REFERENCE TO RELATED APPLICATIONS

This is a continuation-in-part of application Ser. No. 10/383,532, entitled Multi-purpose Golf Club, filed Mar. 10, 2003, now abandoned and the same is incorporated herein by reference, which is a continuation-in-part of application Ser. No. 09/849,522, now U.S. Pat. No. 6,530,848, which is a utility conversion of Provisional Patent application No. 60/205/250, filed May 19, 2000. Each of said applications are incorporated by reference herein.

BACKGROUND OF THE INVENTION

A. Area of Invention

The invention relates to a method of selectably varying the center of gravity and distribution of weighting in a void space in the head of a golf club.

B. Prior Art

Golfing enthusiasts appreciate the dynamic characteristics of golf irons and woods and the manner in which performance of the same will vary as a consequence of physiologic characteristics of a particular golfer. Such physiologic factors will affect a variety of ball strike parameters including, without limitation, loft trajectory, inertial spin, range hook and slice.

My issued U.S. Pat. No. 6,530,848 (2003) sets forth the use of weighting options for the center of gravity ("CG") of a club resultant from a substantial hollowing out of or void space in a top or predominant portion of the club head, as a manufacturing step. Said void space teaches the significance of placement of the position of a weight within such hollowed-out portion to effect a variety of ball strike and flight characteristics including increase or decrease of clockwise spin, counterclockwise spin and back spin of the ball so propelled by the golf club. Said patent further sets forth the variability of a weight element to adjust the weight of the golf club to induce a more desirable ball spin to thereby accomplish an improved trajectory of ball flight.

Use of a cavity within the upper surface of a putter type golf club in to vary the weight or balance of the heel, toe and bottom portions of a putter club head, and certain uses of weights therein, is recognized in U.S. Pat. No. 5,683,307 (1997) to Rife, entitled Putter Type Golf Club Head with Balance Weight Configuration and Complementary Ball Striking Face. U.S. Pat. No. 3,841,640 (1974) to Gaulocher, entitled Golf Putter, reflects a rudimentary recognition of the importance of proper weighting within the head of a golf putter to compensate for physiologic needs and preferences of a golfer. Such approaches in the prior art have attempted to address one or another problem associated with the golf strike characteristics or, in some cases, the characteristics of the golf range surface. As is well known, golfing greens are replete with imperfections which affect ball speed, spin and roll. Accordingly, a wide range of both ball flight and ground surface performance factors can be attributed to weight distribution and position of the CG within the club head.

U.S. Pat. No. 4,909,029 (1990) to Sinclair employs an upper void space to modify the aerodynamics of the head of the golf ball.

The present inventive method reflects my discovery that many more options for positioning of the CG and distribution of weight or weights within the head of a golf club, whether that club comprises an iron, a wood, or a hybrid

2

thereof, in positioning, behind the club face, selectable high density weighting elements at coordinates of an orthonormal matrix up to 27 potential locations in a void space, to thus compensate for physiologic imperfections in one or more characteristic of the swing of a golfer. The angulation and curvature of the club face relative to said matrix provides a yet further performance enhancing parameter that co-acts with weight elements within said matrix.

Published U.S. Specification US 2003/0199331A1 teaches use of a re-positionable weight chip in a golf club to modify club performance.

SUMMARY OF THE INVENTION

The performance of golf club heads made of wood, plastic, metal, and composites thereof may be enhanced through the provision of a void space behind a face plate and above the sole portion, to decrease club weight and provide single or combinations of selectable weighting elements within volumetric coordinates of an orthonormal matrix within said void space. Said coordinates are provided as a function of ball strike, flight analysis and physiologic or computerized observation of the golf strike swing. In a basic embodiment, ball flight may be affected by varying the mass of a selectable sole portion which may be uniformly or variably weighted from the club hosel to toe end. Weight of uniform or non-uniform distribution may also selectably be provided within the void space behind the face plate and above the fixed sole portion. The angle and curvature of the face plate may also be varied.

The inventive method more particularly comprises a method of golf club performance enhancement, the method comprising the steps of (a) provision of a void space behind a face plate of said club and above a sole portion thereof; and (b) in a virtual X, Y, Z orthonormal coordinate system in which said sole portion is partially congruent with a bottom-most xy plane thereof, in which said face plate intersects a forward-most XZ plane thereof, and in which a heel and hosel side of said club intersects a YZ plane thereof substantially at an origin of said coordinate system, and further in which an increase in X-axis value corresponds to a direction of a toe of said club, an increase in Y-axis value corresponds in direction to a rear of said club, and an increase in Z-axis value corresponds to increase in height above said sole portion, the steps of selectably employing at least two of the following club weighting strategies: (i) to modify backspin, providing within said void space, weighting means at a low Y, low Z coordinate to increase backspin or at a high Y, high Z coordinate to decrease backspin; (ii) to modify ball penetration, providing within said void space weighting means at a high Y, high Z coordinate to maximize penetration or at a low Y, low Z coordinate to minimize penetration; (iii) to modify ball trajectory, modifying weighting means within said void space at a low Z-coordinate to increase trajectory or at a high z-coordinate to decrease trajectory; and (iv) to compensate for bait hook or slice, providing weighting means within said void space at a low X-coordinate to compensate for hook or a high X-coordinate to compensate for slice.

It is accordingly an object of the invention to provide a golf club having a weight modifiable club head, inclusive of interchangeable sole plates and/or weighting elements, which express a universal method of golf club head modification to account for ball backspin, penetration, trajectory, and hook or slice.

US 7,128,660 B2

3

It is another object to provide a wooden, plastic or metal golf club having a head with a hollowed out portion behind the face plate and above a uniform or non-uniform sole plate.

It is a further object of the invention to provide a golf club head with a hollowed-out void space, made during production, to a golfer's preference, and further providing a modifiable sole plate, with or without addition integral or added weights selectable positioned in volumetric coordinates of a virtual matrix about said void space.

It is a further object to provide a club head, modified with a hollow interior and having selectable point, axis, vector distributed linear or non-linear weights which may be inserted or removed to suit particular preferences, needs and physiologic requirements of a golfer.

It is a yet further object of the invention to provide improved elements and arrangements thru a method of providing an inexpensive, durable and effective means of compensating for ball spin, ball flight trajectory, ball spin and golf course surface variables.

The above and yet other objects and advantages of the present invention will become apparent from the hereinafter set forth Brief Description of the Drawings, Detailed Description of the Invention, and Claims appended herewith.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the head of a golf club configured for the practice of the present inventive method and products thereof.

FIG. 2 is an illustration of a virtual three-dimensional orthonormal matrix by which the inventive method may be practiced.

FIG. 3 is a graph-type illustration a golf club performance parameters which may be effected by weighting within the xy plane of said orthonormal matrix.

FIG. 4 is a graph showing the golf performance parameters which may be influenced by weighting within the xz plane of said matrix.

FIG. 5 is a graph showing the club performance characteristics which may be influenced by weighting within the yz plane of said matrix.

FIG. 6 is an illustration of a weighting of a club head of the type of FIG. 1 at a (X2, Y2, Z3) coordinate of said matrix.

FIG. 7 is a front plan view of the club of FIG. 1 showing weighting at x3, Y1, Z2 coordinate and at a (X2, Y1, Z1) coordinate.

FIG. 8 is a view, similar to that of FIG. 6, however showing weighting of the club of FIG. 1 at a (X2, Y3, X3) coordinate and at the (X3, Y1, Z2) coordinate.

FIG. 9 is a view, similar to that of FIG. 7, however showing weighting at a (X1, Y1, Z1) coordinate.

FIG. 10 is a view, similar to that of FIG. 6, however showing weighting at a (X2, Y3, Z1) position.

FIG. 11 is a view similar to that of FIG. 6, however showing weighting at a (X1, Y3, Z2) coordinate.

FIG. 12 is a view, similar to that of FIG. 6, however showing weighting of the club head at a (X3, Y3, Z3) coordinate of the orthonormal matrix.

FIG. 13 is a three-dimensional graph showing the effect of weighting at different combinations of the X, Y, and Z coordinates of the orthonormal matrix and the parametric results of such weighting.

4

FIG. 14 is a view of a club head of the type of FIG. 1, however showing the use of multiple weights across multiple coordinates.

FIG. 15 is a view, the use of a horse shoe weighting element to broaden the sweet spot and to achieve other modifications of ball flight performance.

FIG. 16 is a view showing the use of a propeller type weighting element to modify golf club performance.

FIG. 17 is a view in which a strip-like element is used to modify club performance.

FIG. 18 illustrates the use of a clip-on element to achieve particular modifications of golf strike and ball flight characteristics.

FIG. 19 shows a further snap-on element to provide different performance characteristics.

FIG. 20 shows a yet further snap-on weighting element for the modification of ball strike characteristics.

DETAILED DESCRIPTION OF THE INVENTION

With reference to the perspective view of FIG. 1, there is shown a golf club head 100 modified from the shape of more conventional golf club heads through the provision of a void space 102 behind a face plate 104 above a sole plate portion 106 of the club head 100. Also shown in FIG. 1 is a golf club hosel 108 which enters the club head at a heel 110 of the club. Located oppositely to heel 110 is club toe 112.

In FIG. 2 is shown an orthonormal matrix 114 which surrounds the club 100, and is defined by an X, Y and Z coordinate system corresponding to the three essential axes of the club, shown to the upper left of FIG. 2. Said X, Y and Z axes of said orthonormal matrix 114 provide for a 3x3x3 system of 27 volumetric coordinates. Therein, the position (X₀, Y₀, and Z₃) defines the location at which hosel 108 enters club head 100. The (X2, Y2, Z2) position, shown in shading in FIG. 2, represent the center of gravity of the club and is consistent with a normal or standard flight of the golf ball. In other words, a golfer having a perfect golf swing would, in accordance with the present system, apply a weighting element to a club head, of the type of club head 100, at position (X2, Y2, Z2) of the matrix shown therein. For ease of reference in the figures which follow, applicable coordinate nomenclature for various positions

In the charts of FIGS. 3-5 are shown the XY, XZ and YZ coordinate relationships which affect particular parameters of ball strike, path, trajectory and rotation which are of interest to golfers. More particularly, shown in FIG. 3 is the effect of different types of weighting within the XY plane of orthonormal matrix 112, that is, the horizontal plane thereof. Therein, weighting in the +X or toe direction will increase the loft or ballooning of flight path of the golf ball, so that +X weighting direction of the club will provide for slice (right curvature) compensation of the golf ball. Conversely, weighting toward the heel or in the -X direction will provide for hook (left curvature) compensation. FIG. 3 also indicates that maximum backspin of the ball may be achieved by weighting at a low y position, that is, at the plane of the face plate, while minimum back spin may be accomplished through weighting toward the rear of the club, this corresponding to the Y3 position.

With reference to FIG. 4, one may note that hook or slice compensation, as in FIG. 3, remains a function of the weighting along the X-axis. In the XZ plane which is a vertical plane co-parallel with club hosel 108, trajectory may be controlled as a function of position of weighting upon the z-axis, that is, the lowest z-axis position (Z1) will afford the

US 7,128,660 B2

5

highest trajectory, whereas the highest z-axis position (Z3) will produce the lowest trajectory of ball flight.

Backspin of the ball is also a function weighting along the Z-axis. As may be noted by the line at the middle of FIG. 4, the Z1 position will produce a maximum spin of the ball, while weighting at Z3 will produce a minimum backspin. Accordingly, viewing FIGS. 3 and 4 in combination, it may be appreciated that a minimum backspin may be achieved by weighting at the (X2, Y3, Z3) coordinate, while maximum backspin may be achieved by weighting at the (X2, Y1, Z1) coordinate, as will also be illustrated in the figures which follow.

With reference to FIG. 5, this chart corresponds to the YZ plane which is a vertical plane substantially parallel with toe face 110 of the club (see FIGS. 2 and 6).

From FIG. 5, it may be noted that minimum penetration, that is, maximum apex of ball flight, is achieved at the (Y1, Z1) position, while maximum penetration is achieved at the (Y3, Z3) position. Further, the highest trajectory may be seen to exist at the (Y2, Z1) position, while the lowest trajectory is achieved at the (Y2, Z3) position. Minimum backspin is achieved at (Y3, Z3) and maximum backspin at (Y1, Z1).

With the above in mind, the weighting coordinate (X2, Y2, Z3), which is shown in FIG. 6, should be appreciated as one that does not provide for either hook or slice compensation but which provides for reduced trajectory (flatter path of ball flight) and some decrease in backspin due to the Z3 part of the coordinate shown.

In FIG. 7 are shown two different weighting coordinates, both within the Y1 axis which includes the plane of face plate 104 of the club head. More particularly, a weighting element A shown to the left of FIG. 7 is the (X3, Y1, Z2) position and affords neutral ballooning, slice compensation, and some additional backspin. In distinction, weighting element B of coordinate (X2, Y1, Z1) provides for high trajectory, maximum backspin and minimum penetration.

With reference to FIG. 8, weighting element C (coordinate X2, Y3, Z3) provides for low trajectory, minimum backspin and maximum penetration, while element D of FIG. 8 provides for neutral ballooning of ball flight, slice (right curvature) compensation and medium trajectory.

With reference to the weighing element at (X1, Y1, Z2) shown in FIG. 9, such an arrangement will provide for neutral ballooning, hook compensation, slightly additional backspin and medium trajectory.

The weighting element (X2, Y3, Z1) shown in FIG. 10 affords high trajectory, high backspin and high penetration, although not as high penetration as would exist were the weighting at the (X2, Y3, Z3) position.

Shown in FIG. 11 is a weighting element at the (X2, Y3, Z2) position. Thereby, there is achieved hook compensation, high penetration and, no change in the ball's natural trajectory.

In the weighting scheme shown in FIG. 12, that is, weighting at the (X3, Y3, Z3) coordinate position, one achieves slice compensation, decreased backspin, low trajectory and maximum penetration.

Three-dimensional relationships of the above-described parameters of backspin, penetration, trajectory and ballooning are illustrated in FIG. 13. It may be appreciated that ballooning control occurs primarily as a function of the X-axis, as does hook and slice compensation, while maximum backspin occurs as a function of weighting at the (Y1, Z1) position with minimum backspin occurring with weighting at the (Y3, Z3) position. Penetration is also a function of the combined effect of two axes, that is, maximum penetra-

6

tion occurring with weighting at the (Y3, Z3) position and minimum penetration occurring with weighting at the (Y1, Z1) coordinate.

In FIG. 14 is shown the use of weights E and F in two different areas of the golf club 100 of FIG. 1. Therein, a good player would move weight E to the back of the club to achieve as penetrating a shot as he could, and would also position weight F to reduce the spin, putting an additional weight in the X-axis center (X2) of the club. This makes the sweet spot smaller, that is, the player must strike the ball right in the center (X2). That is, an ideal strike which would result in a best transference of energy. However, it causes a largest margin of error. Such a golfer therefore would have to be a rather good player to move to the center of the face where he wants to hit the ball. Said weight E also maximizes penetration.

In FIG. 15 is shown the effect of a horse shoe-like structure G, symmetric about the YZ plane at the X2 position. This helps the basic or average player. Such a player moves the weight toward the heel and the toe 112 to make his sweet spot as wide as possible. Structure G also moves the weight down toward the back to get some height on the ball, and also to get more penetration to pick-up some distance. This would be a club for a basic, standard player who simply needs some help that is not interested in slice hook combination. It's just addressing trajectory and spin rate.

With reference to FIG. 16, there is shown the use of a propeller type weight H, having its center at (X2, Y2, Z2), which would be used if one were hitting the ball a bit to the left and low. To compensate for that, the weight is moved to the left, so that the ball will move to the right. To counteract the moving the weight to the left, one may place a projection of the weight H down toward the right hand corner to get the ball up into the air again, and to also move another projection to the rear for penetration and movement up in the air.

With reference to FIG. 17, there is shown the use of a saddle-like weighting element I inserted along the sides and behind the face plate. The benefits of such a weighting geometry are that the weight is set to hit the ball a little higher because the weight is low. It also tends to give it a bit more of penetration, because the weight is moved back. By also moving it to the left, one pushes the ball out to the right, tending to give a shot slightly to the right and is penetrating, but yet will have some spin on it. So it starts out low, goes right and then slows down.

The following charts relate to weighting coordinates to figures, by planes of the orthonormal matrix.

CHART 1

(xy plane)			
	X1 (heel)	X2	X3(toe)
Y ₁	FIG. 9	FIG. 7(B), 14(F)	FIG. 7(A), 8(D)
Y ₂		FIG. 2, 6, 16	
Y ₃	FIG. 11, 14(E)	FIGS. 8(C), 10, 14(E)	FIGS. 10, 14(E)

CHART 2

(xz plane)			
	X1 (heel)	X2	X3 (toe)
Z1 (heel)		FIGS. 7(B), 10, 16	
Z2	FIG. 9, 11	FIG. 2, 14(F)	FIGS. 7(A), 8(D)
Z3		FIGS. 6, 8(C)	FIG. 10

US 7,128,660 B2

7

CHART 3

(yz plane)			
Y1 (toe)		Y2	Y3
Z1	FIG. 7(B)	FIG. 16	FIG. 10, 14(E)
Z2	FIGS. 7(A), 8(D), 9	FIG. 5	FIG. 11
Z3		FIG. 6	FIG. 8(C), 12

In FIGS. 18–20 are shown the use of clip-on type weighting elements. More particularly, a weighting element J of FIG. 18 moves weight to the rear of the club, thus increasing penetration, while lowering the enter of gravity of the club and increasing spin.

In a weighting element K of FIG. 19, weight is not moved back as far, and is raised-up slightly higher than that of element J. This reduces penetration with slightly reduced backspin, the result being a more controllable ball strike.

In FIG. 20, weighting element L provides an elevation of weight, thereby lowering trajectory which also widens the sweet spot, as in element G of FIG. 15. Also, if element L is asymmetric to the right of a YZ plane of symmetry thru location X2, slice compensation is also provided.

It is noted that many of the above functions of the weighting elements may be achieved thru variation in weight and dimension of sole plate 106 (see FIG. 1). For example, if a change in weight is indicated at a (X, Y, Z1) coordinate, a change in weight or weight-distribution in the sole plate will affect the parameters shown in the chart of FIG. 3. Also, as may be noted in FIG. 4, addition or reduction of weight at Z1 will affect trajectory and backspin.

While there has been shown and described the preferred embodiment of the instant invention it is to be appreciated that the invention may be embodied otherwise than is herein specifically shown and described and that, within said embodiment, certain changes may be made in the form and arrangement of the parts without departing from the underlying ideas or principles of this invention as set forth in the Claims appended herewith.

Having thus described my invention what I claim as new, useful and non-obvious and, accordingly, secure by Letters Patent of the United States is:

1. A method of enhancing performance of a golf club, the method comprising the steps of:

(a) providing a void space behind a face plate of said club and above a sole portion thereof;

(b) applying a virtual X, Y, Z orthonormal coordinate system to said club in which said sole portion is partially congruent with a bottom-most xy plane thereof, in which said face plate intersects a forward-most XZ plane thereof, and in which a heel and hosel side of said club intersects a YZ plane thereof substantially at an origin of said coordinate system, and further in which an increase in X-axis value corresponds to a direction of a toe of said club, an increase in Y-axis value corresponds in direction to a rear of said club, and an increase in Z-axis value corresponds to increase in height above said sole portion;

(c) selectably employing two of the following club weighting strategies to said club, in which at least one weighting means thereof is not contiguous to any part of said face plate and a selected value of Y in any one of said strategies does not equal a selected value of Y in a second selected strategy, the strategies comprising:

(i) to modify backspin, providing within said void space weighting means between a low Y, low Z

8

coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin;

(ii) to modify ball penetration, providing within said void space weighting means between a high Y, high Z coordinate to maximize penetration to a low Y, low Z coordinate to minimize penetration;

(iii) to modify ball trajectory, modifying weighting means substantially within said void space between a low Z-coordinate to increase trajectory to a high Z-coordinate to decrease trajectory; or

(iv) to compensate for ball hook or slice, providing weighting means substantially within said void space at a low X-coordinate to compensate for hook to a high X-coordinate to compensate for slice,

thereby enhancing performance of said club.

2. The method as recited in claim 1, in which said selectably club weighting strategies further include the step of:

(v) providing weighting means within said void space at a high Y, high Z coordinate to minimize said ballooning or at a low Y, low Z coordinate to maximize said ballooning.

3. The method as recited in claim 1, in which said weighting means comprises golfer-replaceable elements.

4. The method as recited in claim 2, in which said weighting means comprises golfer-replaceable elements.

5. The method as recited in claim 1, in which said weighting means comprises a weight which is non-uniform along one or more of said X, Y and Z axes.

6. The method as recited in claim 5, in which said weighting means comprises golfer-replaceable elements.

7. The method as recited in claim 5, including:

selection of Step(c)(ii) by securing a strip-like weighting element over said void space at about a (Y2–Y3, Z2) position and spanning all X positions, thereby providing modification of penetration at a medium ball trajectory; and

selection of Step (c)(iv) with regard to the x-axis to compensate for hock or slice.

8. The method of enhancing performance of a golf club as recited in claim 1, in which:

said selectably employing two club weighting strategies further comprising employing three of said strategies.

9. The method of enhancing performance of a golf club as recited in claim 1, in which at least one selected strategy includes weighting means not contiguous with any inner surface of said void space.

10. The method as recited in claim 1, in which a weighting means of a first selected strategy may be integral with that of a second selected strategy.

11. A method of enhancing performance of a golf club, the method comprising the steps of:

(a) providing a void space behind a face plate of said club and above a sole portion thereof;

(b) applying a virtual X, Y, Z orthonormal coordinate system to said club in which said sole portion is partially congruent with a bottom-most xy plane thereof, in which said face plate intersects a forward-most XZ plane thereof, and in which a heel and hosel side of said club intersects a YZ plane thereof substantially at an origin of said coordinate system, and further in which an increase in X-axis value corresponds to a direction of a toe of said club, an increase in Y-axis value corresponds in direction to a rear of said club, and

US 7,128,660 B2

9

an increase in Z-axis value corresponds to increase in height above said sole portion;

(c) providing weighting means substantially within said void space between a high Y, high Z coordinate to minimize ballooning to a low Y, low Z coordinate to maximize said ballooning; and

(d) providing weighting means substantially within said void space between a low X-coordinate to compensate for hook to a high X-coordinate to compensate for slice.

12. The method as recited in claim 11, further comprising the step of:

(e) selectably employing at least one of the following club weighting strategies to said club, in which a selected value of X, Y or Z does not include the value of Y used in Step (c):

(i) to modify backspin, providing within said void space, weighting means between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin; or

(ii) to modify ball penetration, providing within said void space weighting means at a high Y, high Z coordinate to maximize penetration or at a low Y, low Z coordinate to minimize penetration; or

(iii) to modify ball trajectory, providing weighting means substantially within said void space between a low Z-coordinate to increase trajectory to a high Z-coordinate to decrease trajectory.

10

13. The method as recited in claim 12, in which any selected value of Y of Step (e) is not contiguous with any part of said face plate.

14. The method as recited in claim 12, in which said weighting means of at least one strategy is non-uniform along one or more of said X, Y and Z axes.

15. The method as recited in claim 14, including:

selection of Step (e)(ii) by securing a strip-like weighting element over said void space at about a (Y2-Y3, Z2) position and spanning all X positions, thereby providing modification of penetration to medium ball trajectory; and

selection of Step (d) with regard to the X-axis to compensate for hook or slice.

16. The method as recited in claim 11, in which said weighting means comprises golfer-replaceable elements.

17. The method as recited in claim 11, in which said weighting means of at least one strategy is non-uniform along one or more of said X, Y and Z axes.

18. The method as recited in claim 17, in which said weighting means comprises golfer-replaceable elements.

19. The method as recited in claim 11, in which in which a weighting means of a first selected strategy may be integral with that of a second selected strategy.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,128,660 B2
APPLICATION NO. : 10/818899
DATED : October 31, 2006
INVENTOR(S) : John P. Gillig

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Title Page item (73) Assignee, change

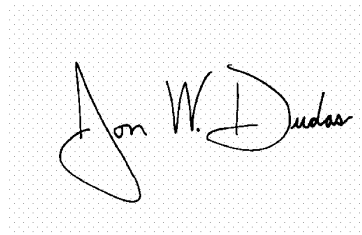
“(73) Assignee: Elizabeth P. Gillig Revocable Trust, Duxbury, MA (US)”

to

--(73) Assignee: Triple Tee Golf, Inc., Pompano Beach, FL (US)--

Signed and Sealed this

Thirty-first Day of July, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is written in a cursive style with a large, stylized "J" and "D".

JON W. DUDAS

Director of the United States Patent and Trademark Office

US007128660C1

(12) **INTER PARTES REEXAMINATION CERTIFICATE (712th)****United States Patent**
Gillig(10) **Number:** **US 7,128,660 C1**(45) **Certificate Issued:** **Oct. 24, 2013**(54) **METHOD OF GOLF CLUB PERFORMANCE
ENHANCEMENT AND ARTICLES
RESULTANT THEREFROM**(58) **Field of Classification Search**
USPC 473/324, 409, 334, 340, 345
See application file for complete search history.(75) Inventor: **John P. Gillig**, Pompano Beach, FL (US)(56) **References Cited**(73) Assignee: **Triple Tee Golf, Inc.**, Pompano Beach,
FL (US)

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/002,049, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Reexamination Request:

No. 95/002,049, Jul. 20, 2012

Reexamination Certificate for:Patent No.: **7,128,660**
Issued: **Oct. 31, 2006**
Appl. No.: **10/818,899**
Filed: **Apr. 3, 2004***Primary Examiner* — Matthew C. Graham(57) **ABSTRACT**

The performance of a golf club may be enhanced through the provision of a void space behind a face plate and above the sole plate, to decrease club weight and provide single or combinations of selectable weighting elements within volumetric coordinates of an orthonormal matrix about the void space. The weighting coordinates are provided in response to ball strike, flight analysis and physiologic observation of the golf strike swing. Ball backspin, trajectory, penetration and hook or slice may be modified through the use of a definable weighting strategy.

Certificate of Correction issued Jul. 31, 2007

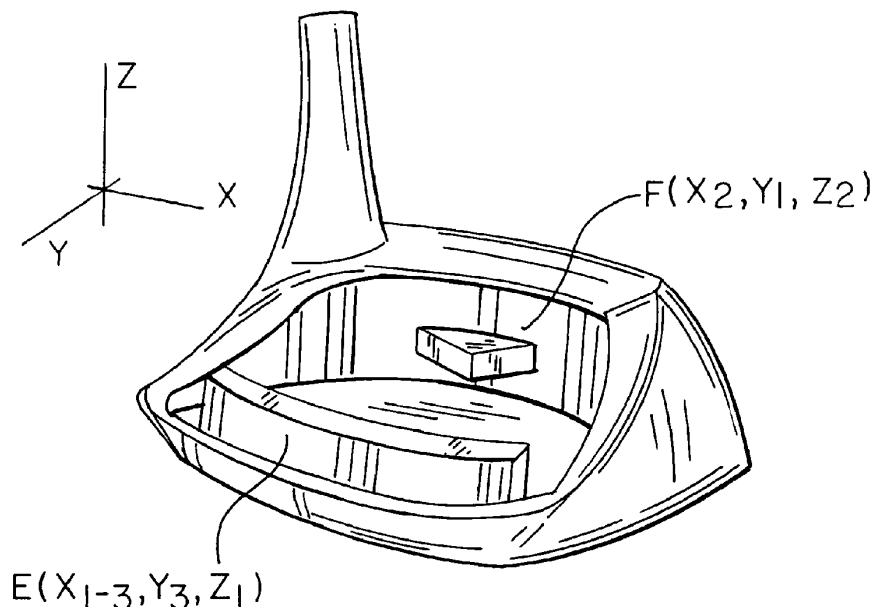
Related U.S. Application Data

(63) Continuation-in-part of application No. 10/383,532, filed on Mar. 10, 2003, now abandoned, which is a continuation-in-part of application No. 09/849,522, filed on May 7, 2001, now Pat. No. 6,530,848.

(60) Provisional application No. 60/205,250, filed on May 19, 2000.

(51) **Int. Cl.**
A63B 53/00 (2006.01)
A63B 53/04 (2006.01)(52) **U.S. Cl.**
USPC 473/324; 473/409; 473/334; 473/340;
473/345

At the time of issuance and publication of this certificate, the patent remains subject to pending reexamination control number 90/012,788 filed Feb. 6, 2013. The claim content of the patent may be subsequently revised if a reexamination certificate issues from the reexamination proceeding.



US 7,128,660 C1

1

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**INTER PARTES
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

**Matter enclosed in heavy brackets [] appeared in the
patent, but has been deleted and is no longer a part of the
patent; matter printed in italics indicates additions made
to the patent.**

ONLY THOSE PARAGRAPHS OF THE
SPECIFICATION AFFECTED BY AMENDMENT
ARE PRINTED HEREIN.

Column 3, line 11:

It is a further object to provide a club head, modified with
a hollow interior and having selectable point, axis, vector *and*
distributed linear or non-linear weights which may be
inserted or removed to suit particular preferences, needs and
physiologic requirements of a golfer.

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

Claims **1-6, 8, 10-14** and **16-19** are cancelled.

Claims **7, 9** and **15** were not reexamined.

* * * * *

US007128660C2

(12) **EX PARTE REEXAMINATION CERTIFICATE** (10189th)
United States Patent
Gillig (10) **Number:** **US 7,128,660 C2**
(45) **Certificate Issued:** **Jun. 12, 2014**

(54) **METHOD OF GOLF CLUB PERFORMANCE
ENHANCEMENT AND ARTICLES
RESULTANT THEREFROM**

(75) Inventor: **John P. Gillig**, Pompano Beach, FL (US)

(73) Assignee: **Triple Tee Golf, Inc.**, Pompano Beach,
FL (US)

Reexamination Request:

No. 90/012,788, Feb. 6, 2013

Reexamination Certificate for:

Patent No.: **7,128,660**
Issued: **Oct. 31, 2006**
Appl. No.: **10/818,899**
Filed: **Apr. 3, 2004**

Reexamination Certificate C1 7,128,660 issued Oct. 24, 2013

Certificate of Correction issued Jul. 31, 2007

Related U.S. Application Data

- (63) Continuation-in-part of application No. 10/383,532, filed on Mar. 10, 2003, now abandoned, which is a continuation-in-part of application No. 09/849,522, filed on May 7, 2001, now Pat. No. 6,530,848.
- (60) Provisional application No. 60/205,250, filed on May 19, 2000.

(51) **Int. Cl.**
A63B 53/00 (2006.01)
A63B 53/04 (2006.01)

(52) **U.S. Cl.**
USPC **473/324**; 473/334; 473/340; 473/345;
473/409

(58) **Field of Classification Search**
USPC 473/335, 345, 349
See application file for complete search history.

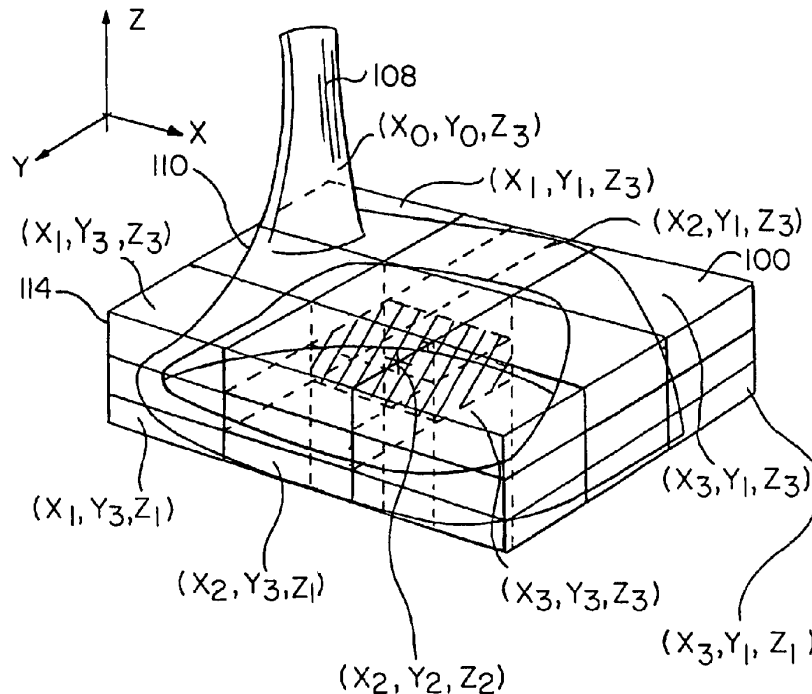
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/012,788, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Matthew C. Graham

(57) **ABSTRACT**

The performance of a golf club may be enhanced through the provision of a void space behind a face plate and above the sole plate, to decrease club weight and provide single or combinations of selectable weighting elements within volumetric coordinates of an orthonormal matrix about the void space. The weighting coordinates are provided in response to ball strike, flight analysis and physiologic observation of the golf strike swing. Ball backspin, trajectory, penetration and hook or slice may be modified through the use of a definable weighting strategy.



US 7,128,660 C2

1

**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

Claims 1-6, 8, 10-14 and 16-19 were previously cancelled.

Claims 9 and 15 are cancelled.

Claim 7 is determined to be patentable as amended.

New claims 20-22 are added and determined to be patentable.

7. The method as recited in claim [5] 20, including:

a selection [of Step(c)(ii)] by securing a strip-like weighting element over said void space at about a (Y2-Y3, Z2) position and spanning all X positions, thereby providing modification of penetration at a medium ball trajectory; and

weighting selection [of Step (c)(iv)] with regard to the X-axis to compensate for [hook] hook or slice.

20. A method of enhancing performance of a golf club head, the method comprising the steps of:

(a) providing a void space behind a face plate of the golf club head and above a sole portion thereof;

(b) applying a virtual X, Y, Z orthonormal coordinate system including X1, X2 and X3 respective low-to-high locations upon an X-axis of said system, Y1, Y2, and Y3 respective low-to-high locations upon a Y-axis of said system, and Z1, Z2 and Z3 respective low-to-high locations of said system upon a Z-axis of said system within said head to define a 3x3x3 volumetric matrix of cells in which said sole portion is partially congruent with a bottom-most XY plane thereof, in which said face plate intersects a forward-most XZ plane thereof, and in which a heel and hosel side of said head intersects a YZ plane thereof substantially at an origin of said coordinate system, and further in which an increase in X-axis

2

value corresponds to a direction from a heel-to-toe of said head, an increase in Y-axis value corresponds in direction from a face-to-rear of said head, and an increase in Z-axis value corresponds to an increase in height above said sole portion; and

(c) selectably employing two of the following weighting strategies to said club head, in which at least one weighting means thereof is not contiguous to any part of said face plate and a selected value of Y in one of said strategies does not equal a selected value of Y in a second selected strategy, the strategies comprising:

(i) to modify backspin, providing within said void space weighting means between a low Y, low Z coordinate to increase backspin to a high Y, high Z coordinate to decrease backspin in which an increase in a Z-axis value does not correspond to a decrease in Y-axis value;

(ii) to modify ball penetration, providing within said void space weighting means between a high Y, high Z coordinate to maximize penetration to a low Y, low Z coordinate to minimize penetration;

(iii) to modify ball trajectory, modifying weighting means substantially within said void space between a low Z-coordinate to increase trajectory to a high Z-coordinate to decrease trajectory; or

(iv) to compensate for ball hook or slice, providing weighting means substantially within said void space at a low X-coordinate to compensate for hook to a high X-coordinate to compensate for slice,

in which at least one selected strategy includes weighting means not contiguous with any inner surface of said void space.

21. The method as recited in claim 20, further comprising: positioning weighting means within said matrix of said void space between a low X or X1 coordinate to compensate for hook, to an high X or X3 coordinate to compensate for slice, said strategy selectably inclusive of a neutral hook-slice effect by positioning at a X2 coordinate.

22. The method as recited in claim 20, further comprising: positioning weighting means within said matrix of said void space between a low Z or Z1 coordinate, corresponding to increased trajectory, to a high Z or Z3 coordinate corresponding to decreased trajectory, said strategy selectably inclusive of a neutral effect Z2 coordinate therebetween.

* * * * *

**United States Court of Appeals
for the Federal Circuit**

Triple Tee Golf, Inc. v. Taylor Made Golf Company, Inc., 2015-1564

CERTIFICATE OF SERVICE

I, Robyn Cocho, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by M.K. SILVERMAN & ASSOCIATES , counsel for Appellant to print this document. I am an employee of Counsel Press.

On **October 19, 2015** counsel has authorized me to electronically file the foregoing **BRIEF OF PLAINTIFF-APPELLANT** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to all counsel registered as CM/ECF users, including any of the following:

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Paper copies will also be mailed to the above principal counsel at the time paper copies are sent to the Court.

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October 19, 2015

/s/ Robyn Cocho
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Certificate of Compliance

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B), because it contains 8908 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6), because it has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman 14 point font.

Dated: October 19, 2015

/s/ Melvin Silverman

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